1238 AGL

SUMMARY OF SITE ASSESSMENTS, SOIL GAS SURVEY, **HUMAN HEALTH SCREENING EVALUATION,** AND WORK PLAN

11630-11700 Burke Street Santa Fe Springs, CA 90670 (RWQCB SCP Case No. 1238)

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Submitted to:

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EAI Project No. 1576

March 2009

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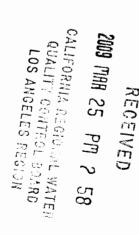


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1.0 INTRODUCTION

This report summarizes the results of prior soil and ground water assessments and soil remediation efforts completed to date for the real property identified as 11630 - 11700 Burke Street, Santa Fe Springs, Los Angeles County, California 90670 (Site) (see Figure 1), documents the results of a soil gas survey and human health screening evaluation completed in the First Quarter 2009, and includes recommendations for additional actions at the Site. EAI was retained by Mr. Larry Patsouras, the current property owner, to prepare this report.

Assessment efforts associated with the Site are currently being overseen by the California Regional Water Quality Control Board, Los Angeles Region (RWQCB). Mrs. Ann Lin is the RWQCB Case Manager assigned to the Site and the Site Cleanup Program Case Number is 1238.

1.1 BACKGROUND INFORMATION

The Site, approximately 8.5 acres, is identified by the County of Los Angeles as Assessor's Parcel Number 8168-001-008. For reporting purposes the Site has been divided into the "East Parcel" where Mr. Patsouras operates El Greco, a wholesale grocery warehouse, and the "West Parcel" where Talco Plastics formerly operated until 1997 (see Figure 2). All of the former Talco Plastics facilities, except an office building, were removed from the West Parcel of the Site pursuant to permits issued by the City of Santa Fe Springs.

Historically, the Site Mitigation Unit (SMU), Health Hazardous Materials Division, County of Los Angeles Fire Department was initially working on environmental issues associated with the Site. On June 4, 1997, the SMU forwarded a letter to Mr. Jim Ross of the RWQCB transferring the case to the RWQCB due to the presence of chemicals, e.g., tetrachloroethene (PCE) and trichloroethene (TCE) detected in ground water beneath the Site.

1.1.1 Historical Land Use

Globe International, Inc. (Globe), a manufacturer of oil well drilling equipment and tools, occupied the Site beginning in or about 1968. Prior to that time the Site was reportedly undeveloped (see AIG, 1994). Palley Supply Company (Palley), a government surplus order house, occupied the Site beginning in 1973. Max Rouse & Sons, Inc., industrial auctioneers, occupied the East Parcel beginning in 1981, followed by Master Box and Paper Company beginning in 1987, and El Greco in 1997. Talco Plastics occupied the West Parcel between about 1983 and 1997. Talco Plastics was in the business of reprocessing plastic resins, i.e., plastic scrap purchased from various sources was ground and further palletized by extrusion.

In 1970, Globe received a Notice of Violation (NOV) from the Los Angeles County Engineer for discharging of liquid waste to the ground surface. An analysis of the waste discharged indicated high levels of dissolved solids. The waste was the result of steam cleaning and degreasing

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operations of steel parts prior to painting. Oil and grease in the wastewater were not analyzed at that time. Subsequently, Globe installed a waste disposal system in which liquid waste flowed out into the sewer after passing through two three-compartment interceptors/clarifiers. Solid sedimentary waste products consisting of chemicals, grease, sand and steel scales estimated at 15-20 cubic feet per month was reportedly pumped from the interceptors/clarifiers and disposed of by private vendors.

In 1978, Palley received a NOV from the City of Santa Fe Springs for discharge of industrial wastewater to the public sewer system. Palley, who was engaged in hydraulic equipment maintenance, was discharging industrial waste from a steam cleaning operation through one or both of the interceptors/clarifiers described above, to the sanitary sewer.

In 1987, the County of Los Angeles Department of Health Services requested a criminal complaint to be filed by the District Attorney's office against Palley. The complaint was associated with the presence of the two subsurface structures (interceptors/clarifiers) consisting of three compartments and each compartment containing a black oily liquid resembling waste oil. Palley ceased these operations in 1987.

In 1988, following overflow of the abandoned clarifiers onto the east parcel of the Site during a rain storm, the City of Santa Fe Springs Fire Department directed Mr. Palley, the property owner at that time, to properly dispose of the waste contained in the two clarifiers and the approximately twenty 55-gallon drums also containing waste located directly adjacent to the clarifiers. Records indicated that 3,500 gallons of waste liquid were removed from the Site on November 15, 1988. The clarifiers were reportedly subsequently abandoned by filling them with sand and concrete.

2.0 SUMMARY OF PRIOR INVESTIGATIONS

2.1 PHASE I SITE ASSESSMENT

In June 1994 AIG Consultants, Inc. (AIG) completed a Phase I Environmental Site Assessment of the Site (see AIG, 1994). The Site at that time was owned by Mr. William Palley and the West Parcel was occupied by Talco Plastics and the East Parcel contained a warehouse that was vacant (see Figure 2). The purpose of the assessment was to identify any known or potential environmental problems at the Site. Based upon their investigation, AIG concluded that there was evidence of past activity at the Site which may represent environmental risks and/or liabilities, and therefore, AIG recommended that a Phase II investigation be performed to determine the presence or absence of contamination.

2.2 PHASE II SITE ASSESSMENT

In August 1994, Professional Service Industries, Inc. (PSII) completed a Phase II investigation of the Site (see PSII, 1994). Based on review of the AIG Phase I report and a walk-through and inspection of the property, PSII drilled and sampled eight borings (B-1 through B-8) ranging in depth from 4.5 to 35 feet below ground surface (bgs), and four hand auger borings (HA-1 through HA-4) on the Site. These soil sampling locations targeted the following areas of the Site (see Figure 3):

LOCATION	BORING
East Parcel	
- Storage Shed	HA-1
- Abandoned Clarifiers	B-6, B-7
- Historical Stained Areas	B-1, B-2, B-3, B-4, B-8
West Parcel	
- Clarifiers (Historical Paint/Steam Cleaning Area)	HA-2, HA-3
- Maintenance Shop (Clarifier)	B-5
- Equipment Storage (Stained Area)	HA-4

Soil samples were selectively analyzed for total petroleum hydrocarbons (TPH) by modified EPA Method 8015, volatile organic compounds (VOCs) by EPA Method 8260, and Title 22 metals by EPA Methods 6010/7471. The results of the hydrocarbon testing are summarized on Table 1 and metal testing on Table 2.

For comparison purposes, Table 1 and Table 2 include Soil Screening Levels (SSLs) based on use of RWQCB attenuation factor guidance (see RWQCB, 1996A and 1996B), California Human Health Screening Levels (CHHSLs) for residential land use and commercial/industrial land use (see Cal-EPA, 2005), and EPA Region 9 Screening Levels for Chemical Contaminants (SLCCs) at Superfund Sites for residential land use and commercial/industrial land use (see EPA, 2008).

2.3 SUPPLEMENTAL SITE ASSESSMENTS

Supplemental assessments of the Site were completed by EAI in 1994 (see EAI, 1995), 1996 (see EAI, 1997) and 1999 (see EAI, 1999). These investigations included:

- 1994: Drilling and sampling of borings E-1 through E-17, and installation of ground water monitoring well MW-1. Borings E-1 through E-17 ranged in depth from 10 to 45 feet bgs. Note four attempts were made to advance boring E-13; however, auger refusal was encountered at each location. Ground water was encountered beneath the Site at a depth of about 36 feet bgs, and therefore, well MW-1 was terminated at a depth of 53 feet bgs and slotted between 33 and 53 feet bgs.
- 1996: Near surface soil sampling locations SS-1, SS-2, SS-3, SS-4 and SS-5, and installation of ground water monitoring well MW-2.
- 1999: Drilling and sampling of borings S-1 through S-10 (each 10 foot deep) and sample location Pit.

These media sampling locations targeted the following areas of the Site (see Figure 3):

LOCATION	BORING					
East Parcel						
- Storage Shed	E-8, E-9, E-11					
- Abandoned Clarifiers	E-7, E-14, E-15					
- Historical Stained Areas	E-10, E-12, SS-1, SS-2,					
	SS-3, SS-4					
West Parcel						
- Underground Storage Tanks	E-1, E-2, E-3, E-4					
- Clarifiers (Historical Paint/Steam Cleaning Area)	E-5, E-6, S-3, S-4, S-5,					
•	S-6, S-7, S-8, Pit					
- Mechanical Pit	E-16					
- Maintenance Shop (Clarifier)	E-17, S-1, S-2					
- Removed Storm Water Clarifier	S-9, S-10					

Selected soil samples were analyzed for TPH as gasoline (TPH-G), as diesel (TPH-D) and as oil (TPH-O) by modified EPA Method 8015M, total recoverable petroleum hydrocarbons (TRPH) by EPA Method 418.1, VOCs by EPA Methods 8020, 8240 and 8260, Title 22 metals, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and polychlorinated biphenyls (PCBs) by EPA Method 8082. See Table 1 and Table 2 for soil testing results.

Ground water well MW-1 was located in the central area of the Site near the former storage shed and clarifiers, and MW-2 in the northeastern area of the Site (see Figure 3). Based on ground

water elevation data for two adjacent properties with known soil and ground water contamination (see Section 4.0) the ground water flow for the area is westerly-southwesterly.

Ground water samples were collected and analyzed for VOCs and Title 22 Metals. Table 3 summarizes the ground water quality data for VOCs and Table 4 for metals.

2.4 REMOVAL OF UNDERGROUND STORAGE TANKS

In April 1998, two USTs (one diesel and one gasoline) were removed from the Site by Advanced GeoEnvironmental, Inc. (AGI) pursuant to a permit issued by the SFSFD. The dispenser (fuel) island and product piping were located directly over the two USTs. Five soil samples were collected from beneath the USTs following removal, i.e., two (B1A and B1B) from beneath the gasoline UST and three (B2A, B2B and B2C) from beneath the diesel UST (see Figure 3). Two samples (SP1 and SP2) of the soil excavated during USTs removal activities were also collected for analysis.

The soil samples collected from beneath the gasoline UST were analyzed for TPH-G, BTEX and MTBE, the samples beneath the diesel UST for TPH-G, TPH-D, BTEX and MTBE, and the stockpiled soil for TPH-G, TPH-D, TRPH, BTEX and MTBE (see AGI, 1998). No chemicals were detected in five soil samples collected from beneath the USTs (see Table 1). TRPH at a maximum concentration of 20 mg/kg was the only chemical detected in the stockpiled soil.

Based on review of AGI, 1998 the SFSFD issued a no further action (NFA) letter for the USTs dated May 1, 1998.

It should be noted that Amnat Environmental & Geotechnical (AEG) completed a Leak Detection Investigation of the USTs in 1995 for the Los Angeles County Department of Public Works. The investigation included the drilling and sampling of six borings, i.e., boring B-1 and B-3 to 40 feet bgs, B-5 and B-6 to 20 feet bgs, and B-2 and B-4 to 5 feet bgs (see AEG, 1995). Fourteen soil samples were analyzed for TPH-G, TPH-D and BTEX. No chemicals were detected in the soil samples analyzed. Note these data are not included on Figure 3 or Table 1.

2.5 REMOVAL OF STORM WATER CLARIFIER

Pursuant to closure authorization issued by the SFSFD on January 7, 1999, the storm water clarifier located west of the office building situated on the West Parcel of the Site was removed. On August 25, 1999, the SFSFD issued a closure certification for the storm water clarifier.

It should be noted that EAI borings S-9 and S-10 were drilled and sampled in February 1999 to assess potential impacts associated with the storm water clarifier (see Figure 3). Soil samples collected from each boring at 10 feet bgs were analyzed for TRPH and VOCs, and no chemicals were detected (see Table 1).

2.6 SOIL REMEDIATION – 2006

In 2006, Biophysics Environmental Assessment, Inc. (BEA) was retained by Mr. Patsouras to excavated impacted soil for two areas on the East Parcel of the Site, i.e., storage shed (EAI Borings E-9 and HA-1) and abandoned clarifier area (EAI Boring B-7). These two areas of the East Parcel were targeted for excavation since prior investigations indicated the presence of hydrocarbons in soil above SSLs (see Table 1).

BEA submitted to the SFSFD a Soil Remediation Work Plan (see BEA, 2006A) and Addendum to Soil Remediation Work Plan (see BEA, 2006B) outlining the soil excavation efforts proposed for the Site. On August 9, 2006 the SFSFD issued a letter approving the Soil Remediation Work Plan as amended.

Between August 16 and 18, 2006, BEA excavated two trenches to approximately 20 feet bgs in areas of the storage shed and abandoned clarifier (see Figure 4). A total of 25 soil samples were collected as part of the excavation efforts, i.e., 12 from the storage shed trench and 13 from the abandoned clarifier area trench. Each soil sample was analyzed for TPH-G, TPH-D, TPH-O and VOCs, including fuel oxygenates, and six soil samples were also analyzed for Title 22 metals (see Table 5).

TPH-G was not detected in any of the 25 soil samples analyzed. TPH-D was detected in four of the 25 soil samples at concentrations ranging between 5.2 mg/kg and 146 mg/kg, and TPH-O in two samples at concentrations of 30J mg/kg (this is an estimated concentration above the method detection limit, but below the laboratory reporting limit) and 180 mg/kg. All of the TPH-D and TPH-O concentrations detected are below their respective SSLs.

Toluene and xylenes were the only VOCs detected in the 25 soil samples analyzed, and both chemicals were detected in only one soil sample, i.e., E9Center@10'. The toluene and xylenes concentrations detected are below their respective SSLs.

Several Title 22 metals were detected in the six soil samples analyzed, i.e., arsenic, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc. No metals were detected above environmental screening levels established for residential and commercial/industrial land use, except arsenic. Arsenic was detected in all six samples at concentrations ranging between 3.6 mg/kg and 5.8 mg/kg.

On October 6, 2006 the SFSFD issued a letter providing comments on the BEA Soil Remediation Report of Findings (see BEA, 2006C). This letter indicates that no further action will be required by the SFSFD for the two areas excavated by BEA in August 2006. However, the letter identified other non-UST regulated subsurface units that require closure by the SFSFD, before redevelopment can be considered. The closure of these subsurface units is addressed in Section 2.7.

It should be noted that the BEA Soil Remediation Report of Findings does not include any figures depicting the locations of the various soil samples collected by BEA as part of their investigation. Only one figure depicting the excavation areas is included in the BEA report.

2.7 CLOSURE OF SUBSURFACE UNITS – 2009

In February 2009, the five non-UST regulated subsurface units associated with the SFSFD letter dated October 6, 2006 (see Section 2.6) were addressed by EAI pursuant to permits issued by the City of Santa Fe Springs (see EAI, 2009B). The units were identified as (see Figure 5):

Subsurface	
Unit No.	Identification
1	Abandoned water line
2	Concrete electrical utility box
3	Clarifier
4	Clarifier
5	Clarifier

Media samples were analyzed for TPH-G, TPH-D, VOCs, SVOCs, Title 22 metals, and PCBs. Table 6 summarizes the results of the analytical testing and media sampling locations are depicted on Figure 5. See EAI, 2009B for details on closure activities.

2.8 GROUND WATER SAMPLING - 2009

2.8.1 Well Redevelopment

On January 28, 2009 EAI staff visited the Site to redevelop wells MW-1 and MW-2 since the wells were last sampled in January 1997. Well MW-1 was dry and the interface probe hit bottom at about 52 feet bgs, indicating about one foot of sludge in the bottom of the well (see Table 7).

Water was encountered at a depth of 39.62 feet in well MW-2, and the interface probe bottomed out at about 53 feet. Well MW-2 was purged and surged until dry, and after about one-hour water had recharged to about 40 feet. Well MW-2 was purged and surged dry a second time and the bottom of the well regauged at 55 feet.

2.8.2 Well Sampling

On February 19, 2009 EAI staff visited the Site to sample the wells. Well MW-1 was dry. Prior to initiating any purging or sampling activities for well MW-2, depth measurements to fluid levels were obtained using an interface probe accurate to 0.01 foot (see Table 3). Ground water was measured in well MW-2 at a depth of 39.70 feet.

Prior to collecting a ground water samples for analytical testing, well MW-2 was purged. Temperature, conductivity, turbidity and pH readings were recorded (see Appendix A). The

ground water was collected from just below the water surface using a disposable bottom bailer equipped with VOC sampling tips. The sample was sealed in 40-milliliter volatile organic analysis (VOA) vials with Teflon septa lined lids. Each vial was completely filled so that no headspace existed between the sample and the lid.

The ground water sample was analyzed for TPH-G, TPH-D, TPH-O, VOCs including fuel oxygenates and ethanol, total chromium, and hexavalent chromium (see Table 3 and Table 4). PCE at a concentration of 7.19 ug/L and hexavalent chromium at a concentration of 0.0039 ug/L were the only chemicals detected in the ground water. Appendix B contains the chain of custody record and laboratory report.

Ground water quality data are presently insufficient to determine the extent of VOC impact associated with the Site, and therefore, additional wells are being proposed (see Section 6.1). However, presently available data for the Site indicate only very low concentrations of selected VOCs in soil, i.e., PCE concentrations less than 0.52 mg/kg, which suggest that minimal ground water impacts are likely from on-site activities.

3.0 SOIL GAS SURVEY

3.1 RATIONALE FOR SOIL GAS SAMPLING STRATEGY

The soil gas sampling strategy was developed to address the presence or absence of VOCs beneath the West Parcel of the Site at depths of 5 and 15 feet bgs. As outlined in the EAI Work Plan (see EAI, 2008) and EAI Work Plan Addendum (see EAI, 2009A), the West Parcel of the Site was divided into 100' by 100' grid segments and soil gas samples collected and analyzed from the approximate center of each grid segment (see Figure 6).

Soil gas sampling and analysis were conducted in accordance with the guidelines contained in the RWQCB and Department of Toxic Substances Control (DTSC) document titled "Advisory - Active Soil Gas Investigations," dated January 28, 2003, supplemented by the DTSC document titled "Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air," dated December 15, 2004, revised February 7, 2005. Soil gas samples were analyzed on-site by a mobile laboratory operated by H&P Mobile GeoChemistry (H&P) for VOCs by EPA Method 8260B, and two confirmation samples collected in Summa Canisters were analyzed by H&P at its fixed-base laboratory for VOCs by EPA Method TO-15.

3.2 SOIL GAS SAMPLING METHODS AND PROCEDURES

Soil gas sampling activities were completed on February 23 and 24, 2009 by H&P under the supervision of EAI staff. The weather was overcast, but no rain. Soil gas samples were collected from 25 soil gas probe locations identified as A4 through E5 (see Figure 6). All soil gas probes were installed on February 23, 2009, and soil gas samples collected from the probes on February 23 and 24, 2009 for analytical testing.

A general description of the soil gas sampling collection procedures is provided below. Appendix C contains H&P's detailed field sampling procedures. All probes were installed using a Strataprobe rig. Once the probe was driven to the desired sampling depth, the hollow probe drive-rods were withdrawn. A small diameter inert nylaflow tubing and filter were then inserted in the borehole to the desired depth. An on-off valve was placed on the tip of the tubing at the ground surface. Clean graded No. 3 kiln dried sand was poured around the tubing and filter to allow for diffusion of soil gas vapors. On top of this sand was emplaced hydrated bentonite to approximately 5 feet bgs and a second probe (consisting of a separate dedicated nylaflow tubing) was installed in the same borehole (i.e., a multi-depth nested vapor probe). One foot of clean sand was placed in the borehole followed by hydrated bentonite to the ground surface.

The probes were allowed to equilibrate for at least 30 minutes, prior to collecting soil gas samples for analytical testing. Soil gas samples for on-site analysis were collected from the inert tubing using a 60 cubic centimeter syringe connected via the on-off valve located at the surface tip of each probe. Each probe was then purged based on a pre-determined purge volume established by the purge volume test (see Section 3.2.1). A sample of the in-situ soil gas was

then withdrawn and immediately transferred to the on-site H&P mobile laboratory for VOCs testing.

Confirmation soil gas samples were also collected from sample locations E3@5' and D6@15' using Summa Canisters. The Summa Canisters contained a choke that filled the canister at a rate of about 150 milliliters per minute. The Summa Canister samples were analyzed off-site for VOCs.

3.2.1 Purge Volume Test

A purge volume test was conducted at the beginning of the soil gas survey to purge ambient air from the sampling system to ascertain the purge volume with the highest concentration. Gas from sample location E1@5' was purged of one, three and seven volumes and each sample was analyzed on-site for VOCs. The highest concentration of VOCs was detected in the three purge volume sample (see Table 8), and therefore, three purge volumes were used for all remaining soil gas samples.

3.2.2 Use of Tracer Compound to Ensure Probe Seal Integrity

A tracer compound, 1,1-difluoroethane, was used to test for leaks around the probe at the ground surface and in the sampling system. The tracer was placed around the base of the probe barrel and at the top of the probe barrel during sample collection. Each soil gas sample was analyzed for 1,1-difluoroethane, the presence of which confirms a leak. No 1,1-difluoroethane was detected (see Appendix B).

3.2.3 Sample Containers

H&P provided the syringes and Summa Canisters used to collect the soil gas samples.

3.3 ANALYTICAL PROGRAM AND RESULTS

Soil gas samples were analyzed by H&P using mobile and its fixed-base laboratory. Fifty seven soil gas samples were collected for analysis, i.e., 52 field samples, three duplicate samples, and two confirmation samples in Summa Canisters. Twenty nine soil gas samples were collected from 5 feet bgs, and 28 soil gas samples from 15 feet bgs.

The field and duplicate samples were analyzed on-site for VOCs by EPA Method 8260B and the Summa Canister samples for VOCs by EPA Method TO-15. The results of the on-site testing are summarized in Table 8 and the Summa Canister results in Table 9. Appendix B contains the chain of custody records and laboratory reports.

The following chemicals were detected in soil gas beneath the Site:

- Propene
- Trichlorofluoromethane (TCFM)
- Acetone
- 1,1-Dichloroethene (1,1-DCE)
- Carbon Disulfide
- 1,1-Dichloroethane (1,1-DCA)
- 2-Butanone (MEK)
- Chloroform
- Benzene
- Carbon Tetrachloride
- Trichloroethene (TCE)
- Toluene
- Tetrachloroethene (PCE)
- Chlorobenzene
- Ethylbenzene
- Xylenes
- 1,2,4-Trimethylbenzene (1,2,4-TMB)
- 1,3,5-Trimethylbenzene (1,3,5-TMB)

Listed below are the frequency of detection and the maximum concentration of each chemical detected at 5 and 15 feet bgs (see Table 8 and Table 9, respectively).

	Maximum			Maximum				
	Concentration	Detec	ction	Concentration	Detection			
	5 feet bgs	Frequency		15 feet bgs	Frequency			
	(ug/L)	5 feet bgs		(ug/L)	15 fee	t bgs		
Propene	0.23	1/1*	100%	0.021	1/1*	100%		
Trichlorofluoromethane	<0.005	0/29	0%	0.011	1/28	3.5%		
Acetone	0.32	1/1*	100%	0.55	1/1*	100%		
1,1-DCE	<0.005	0/29	(0%	0.0059	1/28	3.5%		
Carbon Disulfide	0.036	1/1*	100%	0.001	1/1*	100%		
1,1-DCA	<0.005	0/29	0%	0.0058	1/28	3.5%		
MEK	0.23	1/1*	100%	0.0091	1/1*	100%		
Chloroform	<0.005	0/29	0%	0.15	3/28	11%		
Benzene	0.26	9/29	31%	0.16	10/28	36%		
Carbon Tetrachloride	<0.005	0/29	0%	0.17	4/28	14%		
TCE	0.016	1/29	3%	3.7	21/28	75%		
Toluene	0.057	1/29	3%	1.0	2/28	7%		
PCE	0.47	16/29	55%	17	28/28	100%		
Chlorobenzene	0.009	1/1*	100%	< 0.005	0/1*	0%		
Ethylbenzene	0.015	1/29	3%	0.65	2/28	7%		
Xylenes	0.077	1/29	3%	3.22	2/28	7%		
1,2,4-TMB	0.017	1/1*	100%	0.0094	1/1*	100%		
1,3,5-TMB	0.0058	1/1*	100%	< 0.005	0/1*	0%		

^{* =} Chemical included only for samples analyzed by EPA Method TO-15.

Propene, acetone, carbon disulfide, MEK, chlorobenzene, 1,2,4-TMB and 1,3,5-TMB are not included in the list of target chemicals associated with EPA Method 8260B and are only associated with the two confirmation soil gas samples collected in Summa Canisters and analyzed by EPA Method TO-15, i.e., samples E3@5' and D6@15' (see Table 9).

4.0 OFF-SITE IMPACTED PROPERTIES

There are two properties adjacent to the Site that are known to be impacted, i.e., Pilot Chemical Company located at 11756 Burke Street and Phibro-Tech, Inc. located at 8851 Dice Road, as well as regional contamination identified for the area by the Water Replenishment District of Southern California (WRD) (see WRD, 2007).

4.1 PILOT CHEMICAL

This property is about 4.3 acres in size, located immediately east of the Site across the railroad tracks, and was used to manufacture detergent for industrial purposes. Pilot Chemical is an active case being overseen by the RWQCB, Mr. Henry Jones is the Case Manager, and the matter is identified as Case No. 0383, Site ID No. 2041500. Chemicals of concern include both petroleum and chlorinated hydrocarbons.

Ground water monitoring for the Pilot Chemical site is completed on a semi-annual basis. Figure 7 depicts the approximate location of the 11 ground water wells associated with the Pilot Chemical site and Table 10 summarizes the most recent VOC ground water quality data available to EAI, i.e., April 2008 (see PEE, 2008). The ground water flow direction is reported as westerly-southwesterly.

4.2 PHIBRO-TECH, INC.

This property is about 4.8 acres in size, located immediately east-southeast of the Site across the railroad tracks, and receives various hazardous aqueous wastes and recyclable materials primarily from the electronic and aerospace industries and treats these substances to create usable new products. Phibro-Tech, Inc. is an active case being overseen by DTSC and Ms. Kathy San Miguel of the DTSC Cypress Office is the Case Manager.

Ground water monitoring was initiated at the Phibro-Tech, Inc. site over 20 years ago and continues as part of ongoing cleanup efforts. Three types of contaminants have generally been detected in ground water beneath the Phibro-Tech, Inc. site: (a) dissolved metals; (b) non-chlorinated VOCs; and (c) chlorinated VOCs (see IRIS, 2008). Elevated concentrations of dissolved metals such as hexavalent chromium have consistently been detected in the vicinity of Pond 1, a Resource Conservation & Recovery Act (RCRA) regulated former surface impoundment area located in the center of the facility.

There are over 20 ground water monitoring wells associated with the Phibro-Tech, Inc. site. Figure 7 depicts the approximate location of these wells and Table 10 summarizes the most recent VOC ground water quality data available to EAI, i.e., July 2008 (see IRIS, 2008). The ground water flow direction for the upper zone wells, i.e., 45 feet bgs, is reported as southwest. Although not reported on Table 10, hexavalent chromium concentrations for the July 2008 sampling event ranged from 0.0012 mg/L to 11 mg/L. Hexavalent chromium concentrations

were as high as 120 mg/L in 1989 and have fluctuated between non-detect and 33 mg/L since October 2001.

4.3 REGIONAL IMPACT

The WRD, in cooperation with the United States Geological Service (USGS), has completed a ground water contamination study to assess the Central Basin threat of multiple contamination plumes in the area (see WRD, 2007). The Central Basin includes the cities of Whittier and Santa Fe Springs.

Several large scale releases such as the Omega Chemical Corporation facility in Whittier, a federal Superfund Site being overseen by EPA with a ground water plume known to extend over three miles, McKesson Chemical Corporation facility in Santa Fe Springs being overseen by DTSC, and Angeles Chemical Company, Inc. in Santa Fe Springs being overseen by DTSC, have resulted in regional ground water impacts to the area, which includes the Site. The chemicals of concern are PCE (primary chemical of concern), TCE and their breakdown products. TCE is a known breakdown product of PCE. Figure 8 depicts the regional PCE plume for the WRD Central Basin.

5.0 HUMAN HEALTH SCREENING EVALUATION

Figure 9 presents a Site Conceptual Model.

5.1 SOIL

Table 1, Table 2, Table 5 and Table 6 summarize the results of testing soil samples collected from the Site to date and include SSLs, SLCCs and CHHSLs for screening purposes. SSLs have been developed by the RWQCB for the protection of ground water, and SLCCs by EPA and CHHSLs by Cal-EPA for the protection of human health.

Residential and commercial CHHSLs are applicable to soils that are at the ground surface or could be brought to the ground surface at some time in the future, with subsequent potential exposure by human receptors. A depth of more than three meters (approximately 10 feet) is generally used to delineate "deep" soils that are likely to remain isolated in the subsurface versus "shallow" soils that may be exposed during future redevelopment activities (see Cal-EPA, 1996).

5.1.1 Hydrocarbons

Historical media sampling at the Site for hydrocarbons (see Table 1) did not identify any locations where chemicals were detected above SLCCs or CHHSLs established for residential or commercial land use. Hydrocarbons above SSLs were identified only for sample locations HA-1@2', boring E-9 between 10 feet and 31 feet, boring B-7 between 10 feet and 25 feet, and sample location SS-4@2'.

BEA completed excavation efforts in 2006 covering boring locations E-9 and B-7 (see Figure 4). These efforts removed impacted soil down to about 20 feet at these two locations and confirmation soil samples did not contain any hydrocarbons above SSLs, SLCCs or CHHSLs (see Table 5).

EAI addressed Subsurface Unit No. 1 through Subsurface Unit No. 5 in February 2009 (see Figure 5). Only the soil sample collected from 15 feet bgs associated with Subsurface Unit No. 3 contain a TPH-D concentration which exceeds the SSL standard of 1,000 mg/kg, i.e., TPH-D at 4,940 mg/kg for Sample 4@15'. However, Sample 4@15' did not contain any detectable concentrations of SVOCs or any VOCs above SSLs standards (see Table 6). Elevated concentrations of hydrocarbons were detected in soil Stockpile D, and therefore, this soil will be shipped off-site for processing.

The following lists areas of the Site where hydrocarbons are present in soil above SSLs, but below SLCCs and CHHSLs established for commercial land use:

Year/Sample Location and Depth	Chemicals of Concern (mg/kg)
1994: HA-1@2'	TPH-O@30,000
1994: E-9@25'	TRPH@15,600
1994: E-9@31'	TRPH@10,900
1994: B-7@25'	TPH-O@12,330 and PCE@0.51
1996: SS-4@2'	TPH-G@743 and TPH-D@3,590
2009: Sample 4@15'	TPH-D@4,940

With the exception of locations HA-1 and SS-4, the other three locations (E-9, B-7 and Sample 4) have impacted soils at depths equal to or greater than 15 feet bgs, and therefore, will not be disturbed as part of the future redevelopment (warehouse) proposed for the Site. Further, these three areas are all outside the footprint of the proposed new warehouse building (see Figure 10) and could be addressed at a later date, if necessary. However, given the fact that heavy end petroleum hydrocarbons are the chemical of concern for these three areas, i.e., only PCE was detected at 0.51 mg/kg for sample location B-7@25' and this was in 1994, over 14 years ago and this PCE concentration has since likely been degraded, and the results of the soil gas survey, EAI proposes to leave the deep soils for locations E-9, B-7 and Sample 4 in-place.

With respect to the shallow impacted soils associated with locations HA-1 and SS-4, EAI proposes to excavate and ship these soils off-site for processing (see Section 6.2).

5.1.2 Title 22 Metals

No Title 22 metals, except arsenic, were detected in soil samples above SLCCs or CHHSLs established for commercial land use. Arsenic was detected at concentrations ranging from 0.870 mg/kg to 55 mg/kg. However, metals (including arsenic) are naturally occurring elements typically found in native California soils. Per Department of Toxic Substances Control (DTSC) guidelines (see DTSC, 1999) metals detected at background concentrations or levels determined by DTSC to be safe maybe eliminated as chemicals of concern. DTSC has established 12 mg/kg as a background arsenic concentration for Los Angeles Unified School District (LAUSD) school sites (see DTSC, 2009).

In order to determine the upper 95 percent confidence level (95% UCL) for arsenic detected in soil at the Site, EAI used ProUCL 4.0, a computer program developed by the EPA (see EPA, 2007). The results of the evaluation are presented in Appendix D and summarized below:

Descriptive Statistics	Value
Total Number of Samples	39
Number of Samples below Detection Limit	20 (or 51.28%)
Maximum Detected Concentration of Arsenic	55 mg/kg
Maximum Detection Limit	5.0 mg/kg
Minimum Detection Limit	0.3 mg/kg
95% UCL by EPA Recommended Kaplan-Meier Method	12.99 mg/kg

The 95% UCL arsenic concentration in soil for the Site of 12.99 mg/kg is very close to (within the range of) the 12 mg/kg background concentration determined acceptable by DTSC for LAUSD school sites, i.e., one of DTSC's most sensitive (restrictive) land uses.

The Site is zoned for heavy industrial/manufacturing land use (M-2) and currently is almost completely paved with asphalt and/or concrete or covered by buildings, i.e., only minimal landscaping that fronts the Site exists along Burke Street (see Figure 7). An approximately 108,000 square foot warehouse is proposed for the West Parcel of the Site (see Figure 10) and the remaining area will be paved with asphalt or concrete for parking. Therefore, once redeveloped, there will be no exposure pathway for contact with Site soils. This coupled with the deed restriction that the City will require for the Site (see Section 5.2.7) along with proper contractor notification and monitoring during Site redevelopment will be sufficient to address the arsenic, and therefore, in EAI's opinion, no other actions for arsenic are required.

5.2 SOIL GAS

A human health screening evaluation was completed to determine if the VOCs detected in soil gas beneath the Site at 5 feet bgs and 15 feet bgs are problematic. This screening evaluation for human health effects involves identifying chemicals of concern, evaluating exposure pathways and media of concern, assessing chemical toxicity, and subsequently, characterizing risks. Estimated health risks are based on a calculated dose (i.e., the amount of chemical intake), which integrates exposure parameters for the receptors of concern (e.g., contact rates, exposure frequency and duration), with chemical-specific toxicity criteria (e.g., reference doses and slope factors) and exposure concentrations for the media of concern. The calculated risks are then compared to health-based guidelines developed by the DTSC. For the purpose of this screening evaluation, the potential risks are calculated based on both a hypothetical residential exposure and commercial land-use scenario. The Site is currently zoned for manufacturing/industrial land use.

Exposure to chemicals can only occur if there is a complete pathway by which chemicals in Site soil, water, or air can be contacted by humans. Therefore, the evaluation of exposure pathways and media of concern is the first step in the human health screening evaluation. The results of the human health screening evaluation for indoor air soil gas intrusion are summarized in the risk characterization section.

5.2.1 Chemicals of Concern

The chemicals detected in soil gas beneath the Site at 5 feet bgs, 15 feet bgs, and their maximum concentrations are listed below:

	Maximum Concentration 5 feet bgs	Maximum Concentration 15 feet bgs				
	(ug/L)	(ug/L)				
Propene	0.23	0.021				
Trichlorofluoromethane	<0.005	0.011				
Acetone	0.32	0.55				
1,1-DCE	<0.005	0.0059				
Carbon Disulfide	0.036	0.001				
1,1-DCA	<0.005	0.0058				
MEK	0.23	0.0091				
Chloroform	< 0.005	0.15				
Benzene 0,122	< 0.26	0.16				
Carbon Tetrachloride	< 0.005	0.17				
TCE 1.77	> 0.016	3.7				
Toluene 378	> 0.057	1.0				
PCE 0.603	> 0.47	17				
Chlorobenzene	0.009	<0.005				
Ethylbenzene	0.015	0.65				
Xylenes	0.077	3.22				
1,2,4-TMB	0.017	0.0094				
1,3,5-TMB	0.0058	< 0.005				

5.2.2 Exposure Pathways

Exposure to vapors which may intrude into indoor air was evaluated for the VOCs detected in soil vapor. The Site when developed will be covered almost entirely by a building or paved with asphalt/concrete for parking which precludes the potential for direct contact with soil by future building occupants or visitors. Figure 9 is a Site Conceptual Model of the pathway evaluated by this human health screening evaluation, i.e., exposure to vapors intruded into indoor air. No other exposure pathways were considered.

Exposure to human receptors may occur through infiltration of soil gas into the indoor space. The highest concentrations of individual chemicals detected in soil gas beneath the Site were used for evaluating subsurface gas intrusion into the proposed Site building. To evaluate the health risk, the highest detected concentrations for all of the VOCs detected were input in the DTSC version of SG-Screen Model (see DTSC, 2005).

5.2.3 Exposure Concentrations and Chemicals

Section 5.2.1 summarizes the chemicals detected in soil gas beneath the Site at 5 feet bgs and 15 feet bgs. The health risk calculations were based on using:

- Residential land use scenario and commercial land use scenario.
- Maximum chemical concentrations detected in soil gas as exposure point concentrations.

- Average vapor flow rate into the new building proposed for the Site of 5 liters per minute.
- DTSC model default values for soil physical parameters, e.g., percent moisture content and dry density.

5.2.4 Toxicity Values

The toxicity assessment characterizes the relationship between the magnitude of exposure to chemicals of concern, and the nature and magnitude of adverse health effects that may result from such exposure. For purposes of calculating exposure criteria to be used in risk assessments, adverse health effects are classified into two broad categories, non-carcinogens and carcinogens. Toxicity values/exposure criteria are generally developed based on the threshold approach for non-carcinogenic effects and the non-threshold approach for carcinogenic effects. Toxicity values may be based on epidemiological studies, short-term human studies, and subchronic or chronic animal data.

Toxicity values used in this screening evaluation are from DTSC's Screening Model Lookup tables, except for propene and the inhalation slope factor for ethylbenzene, which are from the Office of Environmental Health Hazard Assessment (OEHHA) toxicity database.

5.2.4.1 Carcinogenic Health Effects

Certain chemicals are regulated as carcinogens based on the likelihood that exposure could cause cancer in humans. Numerical estimates of cancer potency for these chemicals are presented as cancer slope or potency factors. The cancer potency factor defines the cancer risk due to constant lifetime exposure to one unit of a carcinogen (units of risk per [ug/m³]⁻¹). Cancer potency factors are derived by calculating the 95% UCL on the slope of the linearized portion of the dose-response curve using the multistage cancer model on study data. Use of the 95% UCL of the slope means that there is only a 5 percent chance that the probability of a response could be greater than the estimated value for the experimental data used. This is a conservative approach and may overestimate the actual risk given that the actual risk is expected to be between zero and the calculated value. Carcinogenicity potency factors assume no threshold for effect, i.e., all exposures to a chemical are assumed to be associated with some risk, i.e., there is no threshold below which the risk is negligible or unlikely. If there are thresholds for carcinogenicity, the true risks could be zero at sufficiently low doses. Table 11 presents the cancer potency factors used in this health risk assessment.

5.2.4.2 Non-Carcinogenic Health Effects

A range of exposures is assumed to exist from zero to some finite value (a threshold) that can be tolerated by the organism without appreciable risk of an adverse health effect occurring for the purposes of assessing risks associated with non-carcinogenic effects.

Non-carcinogenic health effects were evaluated using reference concentrations (RfCs) developed by the EPA. The RfC is a health-based criterion based on the assumption that thresholds exist for non-carcinogenic toxic effects (e.g., lung or liver damage). In general, the RfC is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious health effects during a lifetime of exposure. RfCs are expressed as acceptable daily doses in mg/m³. Table 11 presents the RfCs used in this health risk assessment.

5.2.5 Risk Characterization Summary

Risk characterization integrates the quantitative and qualitative results of data evaluation, exposure, and toxicity assessments. The purpose is to estimate the likelihood, incidence, and nature of potential human health effects to defined receptor populations that may occur as a result of exposure to the chemicals of concern at the Site.

A total of 18 VOCs were identified in soil gas samples collected from the Site (see Section 5.2.1). Table 12 summarizes the chemical specific cancer and non-cancer risks for the Site based on soil gas data from 5 feet bgs, and Table 13 for soil gas data from 15 feet bgs.

5.2.5.1 Carcinogenic Risks

Carcinogenic risks are expressed as the upper-bound, increased likelihood of an individual developing cancer as a result of exposure to a particular chemical. For example, a cancer risk of 1 x 10⁻⁶ (one per million) refers to an upper-bound increased chance of one person developing cancer assuming one million people are exposed. The potential increase in cancer risk from exposure to chemicals detected in soil gas is in addition to a background risk of developing cancer. The background cancer risk is about one in three (0.33) for every American female, and one in two (0.5) for every American male of eventually developing cancer (see ACS, 1997). A cancer risk of one per million or less is typically considered acceptable for a residential land use scenario and 10 per million or less acceptable for a commercial land use scenario.

The results of the cancer risk calculations for the air exposure pathway, using the air concentrations derived from the DTSC SG-Screen Model (see Appendix E), are provided in Table 12 and Table 13. The cancer risks associated with hypothetical residential exposures and commercial exposures are:

Soil Gas Depth	Residential	Commercial	
5 feet bgs	3.8E-06 or 3.8 per million	2.3E-06 or 2.3 per million	
15 feet bgs	1.6E-05 or 16 per million	9.8E-06 or 9.8 per million	

It should be noted that PCE accounts for approximately 81% of the risk associated with soil gas data from 15 feet bgs (see Table 13), and PCE is the only chemical detected in all 28 soil gas samples collected from 15 feet bgs and was detected only in 16 of the 29 soil gas samples collected (55%) from 5 feet bgs (see Section 3.3). The presence of PCE in soil gas appears to be

primarily the result of volatilization from the regionally contaminated ground water which is evidenced by higher concentration and frequency of detection at 15 feet bgs versus lower concentration and frequency of detection at 5 feet bgs, due to an upward diffusion process governed by Fick's law.

Another methodology that can be utilized to calculate risks is use of the 95% UCL for all chemicals detected as exposure point concentrations. However, with the exception of PCE in soil gas at 15 feet bgs, the frequency of detection for all other chemicals detected at 5 feet bgs and 15 feet bgs is insufficient to calculate the 95% UCL (see Section 3.3). However, if you use the upper 95% UCL for PCE detected in soil gas at 15 feet bgs, i.e., 8.123 ug/L (see Appendix D), instead of the maximum concentration of 17 ug/L, along with the maximum concentrations for all other chemicals detected at 15 feet bgs, reduces the residential risk from 16 per million to 9.5 per million and the commercial risk from 9.8 per million to 5.6 per million (see Table 14).

5.2.5.2 Non-Carcinogenic Health Hazards

The potential for noncarcinogenic effects due to exposure to a particular chemical is expressed as the hazard quotient. A hazard quotient is the ratio of the estimated intake or average daily dose of a chemical to the corresponding chemical-specific toxicity value or RfC. The hazard quotients are then compared to an acceptable hazard level. Implicit in the hazard quotient is the assumption of a threshold level of exposure below which no adverse effects are expected to occur. If the hazard quotient exceeds 1.0 (i.e., site specific exposures would exceed the RfC), then the potential for non-carcinogenic adverse effects may exist. Hazard quotients less than 1.0 indicate that no adverse health effects are expected to occur from exposure to chemicals of concern at the Site.

The hazard index associated with hypothetical residential exposures and commercial exposures are (see Table 12, Table 13 and Appendix D):

Soil Gas Dept	th Residential	Commercial	
5 feet bgs	1.5E-02 or 0.015	1.4E-02 or 0.014	
15 feet bgs	1.7E-01 or 0.17	1.0E-01 or 0.1	

5.2.6 Uncertainty Analysis

The purpose of a risk assessment is not to predict the actual risk of exposure to an individual. Risk assessments are a management tool for developing conservative estimates of health hazards that are unlikely to underestimate the true risk for potentially exposed populations. The numerical estimates in a risk assessment have associated uncertainties reflecting the limitations in available knowledge about site concentrations, exposure assumptions (e.g., exposure concentrations, intake rates) and chemical toxicity. Where information is incomplete, conservative assumptions (assumptions that err on being overprotective) are made. The greater the uncertainty, the more conservative are the assumptions, in an attempt to be protective of public health. In other words, although calculations of exposure often must be simplified to a

few pathways or subgroups within a population, the simplifying assumptions should be more likely to overestimate than underestimate risk so that public health is protected regardless of the other unknown conditions. Even when actual characteristics of a population are known, assumptions on exposure are often biased toward producing over protective rather than under protective health risk estimates for most of the population.

Risk assessment procedures are thus designed to result in a conservative estimate of risk in order to be protective of the majority of the population and to compensate for uncertainties inherent in estimating exposure and toxicity.

Both the carcinogenic and hazard risks were based upon the maximum detected concentration of the chemicals of concern from a single sample point. If a site-wide average of the detected values for the chemicals of concern were used in determining the carcinogenic and hazard risks, the results of the risk assessment would be considerably lower.

In summary, every aspect of the risk assessment contains multiple sources of uncertainty. Simplifying assumptions are made so that health risks can be estimated quantitatively. Because the exact amount of uncertainty cannot be quantified, the risk assessment is intended to overestimate rather than underestimate probable risk. The results of the assessment therefore, are likely to be protective of health despite the inherent uncertainties in the process.

5.2.7 Conclusions

A total of 18 VOCs were detected in soil gas samples collected from beneath the Site. A human health screening evaluation was completed using the maximum concentrations of chemicals detected in soil gas at 5 feet bgs and 15 feet bgs as exposure point concentrations. The results of the risk assessment indicate an incremental cancer risk below 10 per million which is typically considered acceptable for commercial development. The hazard quotient is also below the threshold level of 1.0.

Because the incremental cancer risk is above the one per million standard typically considered acceptable for residential development, but below the 10 per million standard typically considered acceptable for commercial/industrial development, the City of Santa Fe Springs has indicated to the property owner that a deed restriction will be required for the Site. The deed restriction will limit development at the Site to industrial, commercial or office space, and preclude residences for human habitation, hospitals, schools for persons under 21 years of age, and day care centers for children or senior citizens.

6.0 WORK PLAN

Field activities will be completed under the supervision of an EAI California registered geologist or California registered civil engineer in accordance with the health and safety guidelines outlined in the EAI report for the Site titled "Health and Safety Plan," a copy of which is included as Appendix C of EAI, 2008.

Prior to initiating field activities, sampling and excavation locations will be marked, Underground Service Alert (USA) will be notified, and a dig alert number obtained.

6.1 GROUND WATER MONITORING WELLS

In order to provide additional information on the quality of ground water beneath the Site, two ground water monitoring wells are proposed as approximately depicted on Figure 10.

6.1.1 Permits

A Permit to install the wells will be obtained from the County of Los Angeles Environmental Health Division, Bureau of Environmental Protection, Water Quality Program.

6.1.2 Soil Sampling

All borings will be advanced by a C-57 Water Well Driller and logged in accordance with the Unified Soil Classification System. Soil samples will be collected from each boring being at 5 feet bgs and at 5 foot intervals thereafter until termination for logging purposes. The soil samples will be collected using three 2-inch diameter by 6-inch long tubes mounted within a 2-inch inside diameter split-spoon drive sampler employed in advance of the augers. After sample recovery, EnCore® samplers (conforming to EPA Method 5035) will be used to collect the soil samples from the lowermost 6-inch long tube for analytical testing.

A MiniRAE Plus Photo-Ionization Detector (PID) calibrated against a n-hexane gas standard, or equivalent instrument, will be used on the soil contained in the second tube from the bottom of the shoe, at each sampling interval within the borings, to determine if volatile hydrocarbon vapors are emanating directly from the soil. Each sample will be placed in an airtight "Ziploc" plastic bag. The soil samples will be allowed to sit in the bags for a minimum of five minutes and then the headspace in the bags will be analyzed using the PID. The results of this field-testing will be recorded on the boring log.

6.1.3 Ground Water Well Construction

Two ground water monitoring wells are presently located on the Site, with MW-1 being 53 feet deep and MW-2 being 55 feet deep (see Table 7). On February 19, 2009, well MW-1 was dry and water was encountered in well MW-2 at 39.70 feet bgs (see Table 3). Ground water data for

the adjacent Pilot Chemical and Phibro-Tech, Inc. facilities indicate ground water is present at about 45 feet bgs (see Figure 7).

The planned termination depth of the wells is 70 feet bgs, but may need to be modified depending upon conditions encountered in the field.

The wells will be drilled using 8-inch outside diameter continuous flight hollow stem augers. The wells will be constructed of 2-inch inside diameter Schedule 40 polyvinyl chloride casing to a depth of about 70 feet bgs, assuming ground water is encountered between 55 and 60 feet bgs. Each well will be constructed with a slotted section (0.02-inch x 1.5-inch slots) which will extend between 40 and 70 feet bgs. The annular space between the borehole wall and well casing will be backfilled with grade #3 Monterey sand to about three feet above the slotted section. A surge block will be used to settle the filter pack prior to placement of the bentonite seal. An approximate two-foot thick layer of hydrated bentonite chips will be placed on top of the sand pack. The remaining annular space will be grouted to within 6-inches of the surface with a bentonite/cement grout. Flush mounted traffic grates will be placed on each well to prevent sheet flow from entering the well. Figure 11 depicts the proposed well construction details.

6.1.4 Well Development

The wells will be allowed to sit at least 48 hours after construction, prior to development. The wells will be developed until the water is relatively free of settable solids.

6.1.5 Well Elevation Survey

Wells will be surveyed to the requirements of GeoTracker, including the two existing Site wells.

6.1.6 Well Sampling

Prior to initiating any purging or sampling activities, depth measurements to fluid levels in all wells associated with the Site will be obtained using an interface probe accurate to 0.01 foot. These data will be used to construct a ground water elevation map for the Site.

Prior to collecting ground water samples from the wells for analytical testing, the wells will be purged of approximately four well casing volumes of water. Temperature, conductivity, turbidity and pH readings will be recorded to evaluate the effectiveness of purging activities. The samples will be collected from just below the water surface using disposable bottom bailers equipped with VOC sampling tips. The samples will be sealed in 40-milliliter volatile organic analysis (VOA) vials with Teflon septa lined lids. Each vial will be completely filled so that no headspace exists between the sample and the lid.

6.1.7 Sample Identification, Documentation, Packaging and Shipping

To identify and manage the samples collected in the field, a sample label will be affixed to each sample container. Each sample label will include the following information:

- Sample identification number
- Date and time of sample collection
- EAI project number
- Name of client
- Name of sampler

Following sample collection and labeling, the ground water samples will be placed into a high quality ice chest for temporary storage and transport to the analytical laboratory. The following protocol will be used for sample packaging:

- A self-adhesive sample label will be placed across the lid of each sample container, acting not only as a sample label but also as a custody seal.
- The samples will be placed in leak-proof "Ziploc" plastic bags.
- The samples will then be placed into a high quality ice chest which will include ice to keep the samples chilled during transport to the laboratory. The drain plug of the ice chest will be secured using tape to preclude melting ice from leaking out of the cooler.
- The chain of custody record (COC) forms will be placed in a "Ziploc" water-resistant plastic bag and taped to the inside lid of the cooler.
- The samples will be kept chilled until delivered to the laboratory for analytical testing.

COC record forms will be used to document sample collection and shipment to the laboratory for analytical testing. The COC record form identifies the contents of each shipment, the analytical testing to be completed on each sample, and maintains the custodial integrity of the samples.

6.1.8 Decontamination Procedures

The augers will be steam cleaned between each boring. The equipment used to collect the soil samples will be decontaminated prior to each sampling, to assure the quality of the samples collected. The sampling equipment will be decontaminated using the following procedure: (1) all excess soil will be scrapped off the sampler; (2) the sampler will be washed in a solution of non-phosphate detergent (Alconox) and tap water; and (3) the sampler will be rinsed with tap water. The submersible pump used only to develop the wells prior to sampling will be decontaminated using steps 2 and 3 above.

6.1.9 Management of Wastes

In the process of collecting media samples during the field-sampling program, potentially contaminated investigation-derived wastes (IDW) will be generated. These wastes include spent personal protective equipment (PPE), soil cutting, and decontamination and well development/purging fluids. Spent PPE, e.g., gloves, will be double bagged and placed in a municipal refuse dumpster.

Soil cuttings and the liquid effluent generated from decontaminating sampling equipment and sampling the ground water wells will be sealed in labeled 55-gallon drums. The drums will remain on-site, pending the results of the analytical testing of the soil and ground water samples collected in the field, at which time an appropriate disposal method will be determined.

6.1.10 Analytical Testing

The ground water and soil samples will be delivered to Enviro-Chem, Inc. (ECI) for analytical testing. ECI is a State of California certified hazardous waste testing laboratory (ELAP Certification No. 1555) certified for all tests proposed as part of this investigation. Each ground water sample and selected soil samples will be analyzed for TPH-G and TPH-D by modified EPA Method 8015, and full-range VOCs including fuel oxygenates by EPA Method 8260B. Additionally, the ground water samples will be analyzed for total chromium by EPA Method 200.7, and hexavalent chromium by EPA Method 218.6.

6.2 ADDITIONAL EXCAVATION

The shallow impacted soils associated with locations HA-1 and SS-4 will be excavated and removed from the Site. Excavation efforts, air monitoring, confirmation soil sampling, analytical testing, backfilling and compaction of the excavated areas, and reporting will be completed as outlined in the EAI Work Plan (see EAI, 2008) and EAI Work Plan Addendum (see EAI, 2009A) prepared for the Site.

7.0 LIMITATION

Our professional services have been performed using that degree of knowledge, diligence, care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at this time. EAI assumes that information provided by third parties is true, accurate and reliable. This report has been prepared for Mr. Larry Patsouras. Use of this report by any other party shall be at such party's sole risk. The findings and conclusions contained in this report are based on information contained and/or referenced herein, and our best judgment. No other warranty, expressed or implied, is made as to the professional advice contained in this report.

BRENT H.

MECHAM

No. 5649

OF CALIFOR

Respectfully submitted,

ENVIRONMENTAL AUDIT, INC.

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SAB:1576-SITEASSESSMENTSUMMARY-0309

8.0 REFERENCES

- Advanced GeoEnvironmental, Inc., "Soil Sampling Following Removal of Underground Storage Tanks, Talco Plastic, Inc., 11650 Burke Street, Santa Fe Springs, California," dated April 1, 1998 (AGI, 1998).
- AIG Consultants, Inc., "Phase I Environmental Site Assessment, Industrial Buildings 11630-11700 Burke Street, Santa Fe Springs, California 90670," dated June 30, 1994 (AIG, 1994).
- American Cancer Society, "Cancer Facts and Figures 1997," dated 1997. The New York Cancer Society (ACS, 1997).
- Amnat Environmental & Geotechnical, "Leak Detection Program (LDP) Report, Talco Plastics, 11650 Burke Street, Whittier, California," dated September 1995 (AEG, 1995).
- Biophysics Environmental Assessments, Inc., "Soil Remediation Work Plan, El Greco, Inc., 11630-11700 Burke Street, Santa Fe Springs, California," dated June 29, 2006 (BEA, 2006A).
- Biophysics Environmental Assessments, Inc., "Addendum to Soil Remediation Work Plan, El Greco, Inc., 11630-11700 Burke Street, Santa Fe Springs, California," dated July 26, 2006 (BEA, 2006B).
- Biophysics Environmental Assessments, Inc., "Soil Remediation Report of Findings for El Greco, Inc., 11630-11700 Burke Street, Santa Fe Springs, California," dated September 14, 2006 (BEA, 2006C).
- California Environmental Protection Agency, "Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities," dated August 1996 (Cal-EPA, 1996).
- California Environmental Protection Agency, "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties," dated January 2005 (Cal-EPA, 2005).
- California Regional Water Quality Control Board, Los Angeles Region, "Guidance for VOC-Impacted Sites: Soil Screening Levels," dated March 1996 (RWQCB, 1996A).
- California Regional Water Quality Control Board, Los Angeles Region, "Guidance for Petroleum-Impacted Sites: Soil Screening Levels," dated May 1996 (RWQCB, 1996B).

- California Regional Water Quality Control Board, Los Angeles Region/Department of Toxic Substances Control, "Advisory-Active Soil Gas Investigations," dated January 28, 2003 (RWQCB, 2003).
- City of Santa Fe Springs, "Soil Assessment and Remediation Guidelines for Commercial/ Industrial Sites," (City Soil Guidance).
- Department of Toxic Substances Control, "Preliminary Endangerment Assessment Guidance Manual," dated January 1994, second printing June 1999 (DTSC, 1999).
- Department of Toxic Substances Control, "Interim Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air," dated December 15, 2004, Revised February 7, 2005 (DTSC, 2005A).
- Department of Toxic Substances Control, "Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals," dated January 16, 2009 (DTSC, 2009).
- Environmental Audit, Inc., "Preliminary Draft, Remedial Investigation, 11630-11700 Burke Street, Santa Fe Springs, California," dated December 22, 1994 (EAI, 1994).
- Environmental Audit, Inc., "Subsurface Investigation Report, 11630-11700 Burke Street, Santa Fe Springs, CA 90670," dated December 18, 1995 (EAI, 1995).
- Environmental Audit, Inc., "Supplemental Subsurface Investigation, 11630-11700 Burke Street, Santa Fe Springs, CA 90670," dated March 13, 1997 (EAI, 1997).
- Environmental Audit, Inc., "Report on Soil Sampling and Testing, 11630-11700 Burke Street, Santa Fe Springs, California," dated March 1, 1999 (EAI, 1999).
- Environmental Audit, Inc., "Remedial Investigation Work Plan, 11630-11700 Burke Street, Santa Fe Springs, CA 90670," dated November 3, 2008 (EAI, 2008).
- Environmental Audit, Inc., "Remedial Investigation Work Plan Addendum, 11630-11700 Burke Street, Santa Fe Springs, CA 90670," dated January 16, 2009 (EAI, 2009A).
- Environmental Audit, Inc., "Report on Closure of Subsurface Units, 11630-11700 Burke Street, Santa Fe Springs, CA 90670," dated March 2009 (EAI, 2009B).
- IRIS Environmental, "July 2008 Quarterly Sampling Report, Phibro-Tech, Inc., Santa Fe Springs, California," dated October 27, 2008 (IRIS, 2008).

- Pacific Edge Engineering, Inc., "Semi-Annual Groundwater Monitoring & Soil Remediation Progress Report, April 2008 (SLIC No. 383), Pilot Chemical Company, 11756 Burke Street, Santa Fe Springs, California," dated June 2008 (PEE, 2008).
- Professional Service Industries, Inc., "Phase II Preliminary Contamination Assessment, 11630-11700 Burke Street, Santa Fe Springs, California," dated August 18, 1994 (PSII, 1994).
- United States Environmental Protection Agency, "ProUCL Version 4.0 Technical Guide, EPA/600/R-07/041," dated April 2007 (EPA, 2007).
- United States Environmental Protection Agency, Region IX, "Regional Screening Levels for Chemical Contaminants at Superfund Sites," dated May 20, 2008 (EPA, 2008).
- Water Replenishment District of Southern California, "Central Basin Groundwater Contamination Study," dated December 11, 2007 (WRD, 2007).

TABLES

TABLE 1
HISTORICAL (1994 - 1999) SOIL TESTING RESULTS - HYDROCARBONS
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per kilogram - mg/kg)

Original in Color

	T			(8015M)	1	(418.1)	(8020/8240/8260B)																
				(0015/41)	···	(410.1)			Ethyl	Т		Methylene				n-Propyl	ı	p-Isopropyl	sec-Butyl		T		
Firm	Samples ID	Date	TPH-G	TPH-D	ТРН-О	TRPH	Toluene	Xylenes	benzene	PCE	TCE	Chloride	Acetone	TCFM		1	Vaphthalene	toluene	benzene	MEK 1	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB
	RCEL - UNDER		STORAGE	TANKS												<u>.</u>							
EAI	E-1@4-6'	11/29/94	<10	<10	NA	<5	< 0.005	<0.01	<0.005	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-1@9-11'	11/29/94	<10	<10	NA	22	< 0.005	<0.01	<0.005	NA	NA.		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-1@14-16'	11/29/94	<10	<10	NA NA	32	<0.005	0.0481	<0.005	NA	NA NA		NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	E-1@19-21'	11/29/94	<10	<10		9	<0.005	<0.01	<0.005	NA	NA		NA	NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA	NA NA
l	E-1@24-26'	11/29/94	<10	<10		15	<0.005	<0.01 <0.01	<0.005 <0.005	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	E-2@4-6'	11/29/94 11/29/94	<10 <10	<10 <10		NA NA	<0.005 <0.005	<0.01	<0.005	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
İ	E-2@9-11' E-2@14-16'	11/29/94	<10	<10		NA NA	<0.005	<0.01	<0.005	NA NA	NA NA		NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA
	E-2@14-16 E-2@19-21'	11/29/94	<10	<10		NA NA	<0.005	<0.01	<0.005	NA NA	NA NA		NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA
	E-2@19-21 E-2@24-26'	11/29/94	<10	<10		NA	< 0.005	<0.01	< 0.005	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
1	E-3@4-6'	11/29/94	<10	<10		NA NA	< 0.005	<0.01	<0.005	NA	NA NA		NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA.
	E-3@9-11'	11/29/94	<10	<10		NA NA	< 0.005	<0.01	< 0.005	NA	NA NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA NA
1	E-3@14-16'	11/29/94	<10	<10		NA	< 0.005	<0.01	< 0.005	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-3@19-21'	11/29/94	<10	<10		NA	< 0.005	<0.01	< 0.005	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-3@24-26'	11/29/94	<10	<10		NA	< 0.005	< 0.01	< 0.005	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
i	E-4@4-6'	11/29/94	<10	<10		NA	< 0.005	<0.01	< 0.005	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-4@9-11'	11/29/94	<10	<10		NA	< 0.005	<0.01	< 0.005	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-4@14-16'	11/29/94	<10	<10	NA	NA	< 0.005	< 0.01	< 0.005	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-4@19-21'	11/29/94	<10	<10	NA	NA	< 0.005	<0.01	< 0.005	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	E-4@24-26'	11/29/94	<10	<10	NA	NA	< 0.005	<0.01	< 0.005	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AGI	B1A@14.5'	03/24/98	<0.5	NA	. NA	NA		< 0.005	< 0.005	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
- a s	B1B@14.5'	03/24/98	<0.5	NA	NA.	NA		<0.005	< 0.005	NA	NA		ŇΑ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
USTs Removal Samples	B2A@14.5'	03/24/98	<0.5	<10		<10		<0.005	<0.005	NA	NA.		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
San G	B2B@14.5'	03/24/98	<0.5	<10		<10	<0.005	<0.005	<0.005	NA	N.A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[B2C@14.5'	03/24/98	<0.5	<10		<10	<0.005	<0.005	<0.005	NA	N.A	NA NA	NA	NA	NA	NA	NA	ΝA	NA	NA	NA	NA	NA
	RCEL - CLARI				T		-0.0040			-0.00101	.0.001	1 000551	-0.0007	1 -0 00101	-0.0012	-0.00101	-0.0010	-0.001.01	-0.00101	-0.0004	0.00001	-0.001.01	-0.0010
PSII	HA-2@10'	08/04/94	<3	<3				<0.0013	<0.0013	<0.0013	<0.0013		<0.0026		<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0026	0.0033	<0.0013	<0.0013
	HA-3@4.5'	08/04/94	<3	<3	<3	NA.	< 0.0013	<0.0013	<0.0013	<0.0013	< 0.0013	0.003J	<0.0026	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	< 0.0013	<0.0026	<0.0013	<0.0013	< 0.0013
EAT	E 504 C	11/20/04	NA	214	T 314	7.5	<0.005	-0.01	-0.00E	<0.00E	<0.005	< 0.005	<0.005	<0.01	NA	NA	, IAI	NIAL	NA	<0.025	NIA	NIA	NIA
EAI	E-5@4-6' E-5@9-11'	11/29/94	NA NA	NA NA	******			<0.01 <0.01	<0.005 <0.005	<0.005 <0.005	<0.003		<0.005	<0.01	NA NA	NA NA	NA NA	NA NA	NA NA	<0.025	NA NA	NA NA	NA NA
		11/29/94 11/29/94	NA NA	NA		<u> </u>		<0.01	<0.005	<0.005	<0.00.		<0.005	<0.01	NA NA	NA NA	NA NA	NA NA	NA NA	<0.025	NA NA	NA NA	NA NA
1	E-5@14-16' E-5@19-21'	11/29/94	NA NA	NA NA		11		<0.01	<0.005	<0.005	<0.00.		< 0.005	<0.01	NA NA	NA NA	NA NA	NA NA	NA.	<0.025	NA NA	NA NA	NA NA
	E-6@4-6'	11/29/94	NA NA			11		<0.01	<0.005	<0.005	<0.003		< 0.005	<0.01	NA	NA NA	NA NA	NA NA	NA	<0.025	NA NA	NA NA	NA NA
	E-6@9-11'	11/29/94	NA NA							<0.005	<0.00		<0.005		NA NA	NA	NA NA	NA NA	NA	<0.025	NA NA	NA NA	NA NA
İ	E-6@14-16'	11/29/94	NA NA							<0.005	<0.00		<0.005		NA	NA	NA	NA	NA NA	<0.025	NA	NA NA	NA NA
1		11/29/94	NA NA				·			<0.005	<0.00		< 0.005		NA	NA	NA	NA	NA	<0.025	NA	NA	NA NA
	E-6@24-26'	11/29/94								<0.005	<0.00		<0.005		NA	NA	NA	NA	NA.	<0.025	NA	NA NA	
	L-0@24-20	11/25/54	1 1121	1471	11		1 .0.005	1 40.01	(0.005)	40.005	40.00.	0.005	-0.005	0.01	112.61			1374	1122	40.025		1421	1,421
EAI	S-3@10'	02/10/99	NA	NA	NA NA	<10	<0.01	<0.01	<0.01	<0.01	<0.0	1 <0.05	NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.01
	S-4@10'	02/10/99						<0.01		<0.01	<0.0		NA		<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	
	S-5@10'	02/10/99	NA NA							<0.01	<0.0		NA		<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	
	S-6@10'	02/10/99	NA							< 0.01	<0.0		NA		<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.01
	S-7@10'	02/10/99	NA							<0.01	<0.0				<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.01
	S-8@10'	02/10/99								<0.01	<0.0				<0.01	< 0.01	<0.01	< 0.01	<0.01	NA	<0.01	<0.01	<0.01
	Pit@6'	02/10/99								<0.01	<0.0				<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	
	- 1			- 12			4 · · · · · · · · · · · · · · · · ·								· · · · · · · · · · · · · · · · · · ·							-	

XL:1576:SOILDATA-HISTHYDROCARBONS 1 of 4

TABLE 1
HISTORICAL (1994 - 1999) SOIL TESTING RESULTS - HYDROCARBONS
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per kilogram - mg/kg)

Original in Color

	1			(001ENA)		(410.1)		***						(0)	000/0040/00	(AD)							·····
		}		(8015M)		(418.1)	T	-	Ed. J	·····		1.6-41-1		(8)	020/8240/82								
****	G . 1 FD	ا ہا	200	1000	10,000	TO DIE		** 1	Ethyl	DOE	TOE	Methylene			n-Butyl	n-Propyl		p-Isopropyl	sec-Butyl				
Firm	Samples ID	Date	TPH-G	TPH-D	ТРН-О	TRPH	Toluene	Xylenes	benzene	PCE	TCE	Chloride	Acetone	TCFM	benzene	benzene	Naphthalene	toluene	benzene	MEK	1,2,3-TCP	1,2,4-TMB	1,3,5-TMI
	RCEL - MECH			N/A		1.0	<0.005	-0.01	<0.005	<0.005	<0.005	<0.005	<0.005	-0.01	NIA	NTA.	NIA	77.4	77.4	-0.005	37.4		
EAJ	E-16@5' E-16@10'	12/01/94	NA NA	NA NA	NA NA	16	<0.005 <0.005	<0.01	<0.005 <0.005	<0.005	<0.005	<0.005	<0.005 <0.005	<0.01	NA NA	NA	NA NA	NA NA	NA		NA	NA NA	NA
WEST DAI	RCEL - MAINT	12/01/94		NA NA	NA	9	<0.005	<0.01	<0.005	<0.005	< 0.005	<0.005	<0.003	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA.
PSII	B-5@4'	08/03/94	SHOP (Clar	(3)	11.7	NA	<0.0013	<0.0013	<0.0013	<0.0013	< 0.0013	0.0064	<0.0026	<0.0013	< 0.0013	< 0.0013	< 0.0013	<0.0013	<0.0012	<0.0026	<0.0013	10.0012	-0.0010
ron	ID-3@4	06/03/94		- 3	11,/	INA	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0004	<0.0020	<0.0013	<0.0015	<0.0013	<0.0013	<0.0013	< 0.0013	<0.0026	< 0.0013	<0.0013	<0.0013
EAI	E-17@5'	12/01/94	NA	NA	NA	0	<0.005	<0.01	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.01	NA	NA	NA	NA	NT A	<0.025	37.4	27.4	N. 1.
EAI	E-17@3 E-17@10'	12/01/94	NA NA	NA NA	NA NA	13	<0.005	<0.01	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.01	NA NA	NA NA	NA NA	 	NA NA		NA NA	NA	NA NA
	E-17@10 E-17@15'	12/01/94	_	NA NA	NA NA	6	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA NA	NA NA	NA NA	NA NA	NA NA		NA	NA	NA NA
	E-17@13 E-17@20'	12/01/94	NA <10		<10								<0.005		NA NA		*	NA NA	NA NA		NA	NA NA	N/
	E-1/@20	12/01/94	<10]	<10	<u> </u>	98	< 0.005	<0.01	< 0.005	<0.005	<0.005	<0.005	<0.003	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	N/
EAI	S-1@10'	02/10/99	NA	NA	NA	<10	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.05	NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NIA	-0.01	-0.01	-0.01
EAI	S-2@10'	02/10/99	NA NA	NA NA	NA NA					<0.01	 	<0.05	NA NA				<0.01	<0.01	<0.01	NA NA	<0.01	<0.01	<0.01
WEST DAT	RCEL - EQUIP				NA	<10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	,NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	< 0.01	<0.01	<0.01
			JRAGE (Sta		-21	NIA	<0.0012	c0.0013	-0.0012	c0.0012	<0.0012	0.00011	<0.0006	<0.0013	<0.0012	<0.0012	<0.0012	-0.0012	-0.0013	-0.0006	-0.001.01	0.001.01	
PSII]HA-4@2'	08/04/94	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<3	<u> </u>	NA	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	0.0021J	< 0.0026	<0.0013	< 0.0013	< 0.0013	< 0.0013	<0.0013	< 0.0013	<0.0026	<0.0013	<0.0013	< 0.0013
	RCEL - REMO					-10	-0.01	رم مر دم مر	-0 01 l	-0.01	ر ۱ م	-0.05	NT A	-0.01	<0.01	z0.01	-0.01		-0.01	3741			
EAI	S-9@10'	02/10/99	NA	NA	NA	<10	<0.01	<0.01	<0.01	<0.01	<0.01		NA.		<0.01	< 0.01	<0.01	<0.01	< 0.01	NA	<0.01	<0.01	<0.01
	S-10@10'	02/10/99	NA	NA	NA	<10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	NA	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	NA	<0.01	<0.01	<0.01
	RCEL - STORA		2 000	2 000	20.000	3,71	2 2212	0.0012	0.0010	0.00117	.0.0010		0.1	.0.00101	0.0010	0.0010	0.0010		2 2 2 2 2				
PSII ^	HA-1@2'	08/03/94	<3,000	<3,000	30,000	NA	< 0.0013	< 0.0013	<0.0013	0.0011J	< 0.0013	<0.0013	0.1	<0.0013	< 0.0013	< 0.0013	< 0.0013	<0.0013	< 0.0013	0.0075	< 0.0013	<0.0013	<0.0013
T7 A T	TE 900 F 61	11/30/94	NA	NIAI	NTA I	<5	<0.006	∠0.01	<0.005	<0.005	<0.005	<0.005	<0.005		NTA	NIA	NA	NT 4	N7 A	-0.005	37.1	51.1	
EAI	E-8@5-6' E-8@10-11'	11/30/94	NA NA	NA NA	NA NA	<5	<0.005 <0.005	<0.01 <0.01	<0.005 <0.005	<0.005	<0.005	<0.005	<0.005	<0.01 <0.01	NA NA	NA NA	NA NA	NA NA	NA		NA NA	NA NA	NA
																		NA NA	NA		NA	NA	NA
	E-8@15-16'	11/30/94	NA NA	NA NA	NA NA	<5	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA	NA	NA	NA NA	NA		NA	NA	NA
	E-8@20-21'	11/30/94	NA	NA	NA	<5 1.250	<0.005	<0.01	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.01	NA NA	NA NA	NA	NA NA	NA NA		NA	NA	NA
	E-9@5-6'	11/30/94	NA	NA NA	NA	1,350	< 0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA	NA	NA NA	NA.	NA		NA	NA	NA
('	E-9@10-11'	11/30/94	NA	NA	NA	18,900	1.45	3.37	0.384	0.061	0.033	<0.005	<0.005	<0.01	NA	NA	NA	NA	NA		NA	NA	N.A
)	E-9@15-16'	11/30/94	NA	NA	NA	33,000	1.09	2.61	0.287	0.023	0.042	<0.005	<0.005	<0.01	NA	NA	NA	NA	NA		NA	NA	NA
]	E-9@20-21'	11/30/94	NA	NA	NA	16,500	0.017	0.0625	0.0075	0.059	<0.005	<0.005	<0.005	<0.01	NA	NA	NA	NA.	NA		NA	NA	NA
1	E-9@24-25'	11/30/94	NA	NA	NA	15,600	<0.005	<0.01	< 0.005	0.092	<0.005	<0.005	< 0.005	< 0.01	NA	NA	NA	NA.	NA		NA	NA	NA
`	E-9@30-31'	11/30/94	NA	NA	NA	10,900	< 0.005	<0.01	<0.005	0.104	< 0.005	< 0.005	< 0.005	< 0.01	NA	NA	NA	NA.	NA		NA	NA	N.A
	E-11@5-6'	11/30/94	NA	NA	NA	NA	<0.005	<0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
	E-11@10-11'	11/30/94	NA	NA	NA	NA	< 0.005	<0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	NA	NA	NA	NA	NA		NA	NA	NA
	E-11@15-16'	11/30/94	NA	NA	NA	NA	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	N.A
	RCEL - ABAND																	· · · · · · · · · · · · · · · · · · ·					
PSII	B-6@10'	08/03/94	<3	<3	<3	NA.	<0.0013	<0.0013	<0.0013	< 0.0013	< 0.0013	0.0071	0.0091J		< 0.0013	<0.0013	< 0.0013	<0.0013	< 0.0013		< 0.0013	< 0.0013	< 0.0013
ŀ	B-7@10'	08/04/94	<3,000			NA		< 0.0013	< 0.0013	0.0027J	0.27			<0.0013	0.520	0.150	0.190	0.570		< 0.0026		1.6	0.230
	B-7@15'	08/04/94	<300			NA	< 0.0013	< 0.0013	<0.0013	0.27	0,0061	0.0018		< 0.0013		< 0.0013	< 0.0013		< 0.0013			< 0.0013	< 0.0013
	B-7@20'	08/04/94	NA			NA		< 0.0013	<0.0013	0.47	0.0082			0.0039J		< 0.0013	< 0.0013	<0.0013	<0.0013			< 0.0013	< 0.0013
*	B-7@25'	08/04/94	<300			NA		< 0.0013	<0.0013	0.51	0.0082			<0.0013	<0.0013	<0.0013	< 0.0013	<0.0013	< 0.0013		< 0.0013	< 0.0013	<0.0013
	B-7@35'	08/04/94	<3	<3	11.7	NA	<0.0013	< 0.0013	<0.0013	< 0.0013	<0.0013	0.0063	<0.0026	<0.0013	< 0.0013	< 0.0013	< 0.0013	<0.0013	< 0.0013	<0.0026	< 0.0013	< 0.0013	<0.0013
	12.206.3	1 4 4 (0 - 1 - 1	1	221				····			2 25 =			· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·				
EAJ	E-7@0-1'	11/30/94	NA			2,710	< 0.005	<0.01		<0.005	< 0.005		<0.005		NA	NA	, NA		NA		NA	NA	NA
	E-7@7-8'	11/30/94	NA	NA		82	<0.005	< 0.01	< 0.005	<0.005	< 0.005		< 0.005		NA	NA	NA		NA NA		NA	NA	NA
	E-7@15-16'	11/30/94	NA			<5	< 0.005	<0.01		<0.005	< 0.005		< 0.005		NA	NA	NA		NA		NA	NA	N/
	E-7@23-24'	11/30/94	NA			<5	<0.005	<0.01		<0.005	< 0.005		< 0.005		NA	NA	NA		NA		NA	NA	N/
	E-7@31-32'	11/30/94	, NA			<5	< 0.005	<0.01		<0.005	< 0.005		< 0.005		NA	NA			NA		NA	NA	NA
	E-7@39-40'	11/30/94	NA			13	< 0.005	<0.01		<0.005	<0.005		< 0.005		NA	NA	NA		NA		NA	NA	NA
	E-7@44-45'	11/30/94	NA	NA	NA	<5	< 0.005	<0.01	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
						 	 											-					-

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XL:1576:SOILDATA-HISTHYDROCARBONS

TABLE 1
HISTORICAL (1994 - 1999) SOIL TESTING RESULTS - HYDROCARBONS
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per kilogram - mg/kg)

Original in Color

	· · · · · · · · · · · · · · · · · · ·	T		(8015M)	Т	(418.1)								(80	20/8240/826	0R)							
		ŀ		(6015141)		(410.1)			Ethyl			Methylene		(80		n-Propyl	I p	-Isopropyl	sec-Butyl		1		
Firm	Samples ID	Date	TPH-G	TPH-D	трн-о	TRPH	Toluene	Xylenes	benzene	PCE	TCE	Chloride	Acetone	TCFM	benzene		Naphthalene	toluene	benzene	MEK	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB
EAST PA	RCEL - ABAND		ARIFIERS																				
EAI	E-14@5'	12/01/94	NA	NA	NA	23	< 0.005	<0.01	< 0.005	<0.005	< 0.005	< 0.005	<0.005	<0.01	NA	NA	NA	NA	ŇA	<0.025	NA	NA	NA
	E-14@10'	12/01/94	NA	NA	NA	16	<0.005	<0.01	<0.005	<0.005	< 0.005	<0.005	< 0.005	<0.01	NA	NA	NA NA	NA	NA NA	<0.025	NA NA	NA	NA
ļ	E-14@15'	12/01/94	NA	NA	NA	16	<0.005	<0.01	< 0.005	<0.005	<0.005	<0.005	<0.005 <0.005	<0.01	NA NA	NA NA	NA NA	NA NA	NA NA	<0.025 <0.025	NA	NA	NA NA
	E-14@20'	12/01/94	NA	NA	NA	23	<0.005	<0.01 <0.01	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005		<0.005	<0.01 <0.01	NA NA	NA NA	NA NA	NA NA	NA NA	<0.025	NA NA	NA NA	NA NA
1	E-14@25' E-14@30'	12/01/94 12/01/94	NA NA	NA NA	NA NA	18	<0.005 <0.005	<0.01	<0.005	<0.005	<0.005		<0.005	<0.01	NA NA	NA	NA	NA NA	NA NA	<0.025	NA NA	NA.	NA
İ	E-14@35'	12/01/94	NA NA	NA NA	NA	18	<0.005	<0.01	< 0.005	<0.005	< 0.005		<0.005	< 0.01	NA	NA NA	NA	NA	NA	< 0.025	NA	NA	NA
	E-14@40'	12/01/94	NA NA	NA.	NA	25	<0.005	<0.01	< 0.005	< 0.005	< 0.005		< 0.005	< 0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	NA
	E-14@45'	12/01/94	NA	NA	NA	23	< 0.005	<0.01	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	
	E-15@5'	12/01/94	NA	NA	NA	13	< 0.005	< 0.01	< 0.005	<0.005	< 0.005		<0.005	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
1	E-15@10'	12/01/94	NA	NA	NA	16	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
	E-15@15'	12/01/94	NA	NA	NA	13	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005		< 0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	NA
1	E-15@20'	12/01/94	NA	NA	NA	<5	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	NA
	E-15@25'	12/01/94	NA	NA	NA	18	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005		< 0.005	<0.01	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
	E-15@30'	12/01/94	NA	NA	NA	9	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	
	E-15@35'	12/01/94	NA	NA	NA	<5	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.01	NA	NA	NA NA	NA	NA	<0.025	NA	NA	
	E-15@40'	12/01/94	NA	NA.	NA	6	< 0.005	<0.01	< 0.005	<0.005	<0.005		<0.005	<0.01	NA	NA	NA NA	NA	NA	<0.025	NA NA	NA	
	E-15@45'	12/01/94	NA	NA	NA	_<5	< 0.005	< 0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	NA
	RCEL - HISTOR					NIA	<0.0012	<0.0012	<0.0013	<0.0013	<0.0013	0.014	<0.0026	<0.0013	<0.0013	< 0.0013	<0.0013	<0.0013	<0.0013	<0.0026	<0.0013	< 0.0013	<0.0013
PSII	B-1@2' B-2@2'	08/03/94 08/03/94	<3 <3	<3 <3		NA NA	<0.0013 <0.0013	<0.0013 <0.0013	<0.0013	<0.0013	< 0.0013	0.0053J	<0.0026		<0.0013	< 0.0013	<0.0013	<0.0013	<0.0013	<0.0026	<0.0013	< 0.0013	<0.0013
1	B-2@2	08/03/94	3	<3		NA NA	<0.0013	<0.0013	<0.0013	< 0.0013	< 0.0013	0.0098	<0.0026		< 0.0013	< 0.0013	<0.0013	< 0.0013	<0.0013	< 0.0026	<0.0013	< 0.0013	< 0.0013
1	B-4@2'	08/03/94	<3	<3		NA NA	< 0.0013	< 0.0013	<0.0013	< 0.0013	< 0.0013		< 0.0026	< 0.0013	< 0.0013	< 0.0013	<0.0013	< 0.0013	< 0.0013	< 0.0026	< 0.0013	< 0.0013	< 0.0013
	B-8@2'	08/04/94	<60	<60	1,440	NA NA	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	0.0038J	0.14	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	0.027	< 0.0013	< 0.0013	< 0.0013
 	15 0(6)2	00/01/21			2,1101		0.0010	0.000	010,010	0,000				\									
EAI	E-10@5-6'	11/30/94	ΝA	NA	NA	10	< 0.005	<0.01	< 0.005	< 0.005	<0.005		< 0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	
	E-10@10-11'	11/30/94	NA	NA	NA	<5		<0.01		< 0.005	< 0.005		< 0.005	<0.01	NA	NA	NA	NA	NA	< 0.025	NA	NA	
1	E-10@15-16'	11/30/94	NA	NA	NA	<5		< 0.01		< 0.005	< 0.005		< 0.005	< 0.01	NA	NA	NA	NA	NA NA	< 0.025		NA	
1	E-10@20-21'	11/30/94	NA	NA		<5		<0.01		< 0.005	< 0.005		< 0.005	< 0.01	NA	NA	NA	NA	NA	< 0.025		NA	
	E-12@5-6'	11/30/94	NA	NA	NA	<5		<0.01		< 0.005	<0.005		<0.005	<0.01		NA	NA	NA	NA	<0.025		NA	
}	E-12@10-11'	11/30/94	NA	NA	NA	<5		<0.01	<0.005	< 0.005	< 0.005		< 0.005	<0.01		NA	NA	NA	NA	<0.025		NA	
	E-12@15-16'	11/30/94	NA	NA		<5		<0.01	<0.005	<0.005	<0.005		<0.005	<0.01		NA NA	NA NA	NA NA	NA NA	<0.025 <0.025		NA NA	
	E-12@20-21'	11/30/94	NA	· NA	NA	<5	< 0.005	<0.01	<0.005	<0.005	< 0.005	<0.005	<0.005	< 0.01	NA	NA	NA	INA	NA	<0.025	INA.	NA	NA NA
	(3)	40/00/06		à ÷00	0.071	7.500				27.4	. 27.4	774) TA	NTA	NIA	NIA	214	NIA	214	NTA	NIA	NIA	NIA
EAI	SS-4@2' (a)	12/23/96		3,590	3,971	7,530				NA 0.51	NA 0.25		NA 0.24			NA 0.15	NA 0.10	NA 0.57	NA 0.22	NA 0.027		NA 16	
L	M	AXIMUM	743	3,590	31,300	33,000	1.45	3.37	0,384	0.51	0.27	0.014	0.24	0.0039J	0.52	0.15	0.19	0.57	0.22	0.027	0.0033	1.6	0.23
		SSL	500	1,000	10,000	10,000	0.45	5.25	0.9	0.15	0.15	NE NE	NE	0.45	NE	NE	NE	NE	NE	NE	NE	NE	NE
		SLCC-R		NE		NE										NE	3.9	NE	NE	28,000	0.091	67	
		SLCC-I		NE		NE					14		610,000	3,400		NE	20	, NE	NE	190,000		280	200
		CHHSL-R		NE		NE	NE	NE	NE	NE.						NE	NE	NE	NE	NE			
,		CHHSL-I	NE NE	NE	NE	NE	NE NE	NE.	. NE	NE	NE	NE NE	NE	NE.	NE	NE	NE	NE	NE	NE	NE NE	NE	NE

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TABLE 1 HISTORICAL (1994 - 1999) SOIL TESTING RESULTS - HYDROCARBONS 11630 - 11700 Burke Street, Santa Fe Springs, CA 90670 (concentrations in milligrams per kilogram - mg/kg)

0.51 = Concentration detected exceeds SSL

Original in Color

		T		(8015M)		(418.1)								(8	020/8240/82	60B)							
1	ļ								Ethyl			Methylene			n-Butyl	n-Propyl		p-Isopropyl	sec-Butyl				
Firm	Samples ID	Date	TPH-G	TPH-D	ТРН-О	TRPH	Toluene	Xylenes	benzene	PCE	TCE	Chloride	Acetone	TCFM	benzene	benzene	Naphthalene	toluene	benzene	MEK	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB
	Only those VO	Cs detected	d are listed			TPH-G =	Total Petrol	eum Hydroca	arbons as Gas	soline		TCE =	Trichloroeth	ene			1,2,3-TCP =	1,2,3-Trichl	loropropane				
<	< = Not detected at	t laboratory	reporting lin	nit listed		TPH-D =	Total Petrol	eum Hydroca	arbons as Die	sel		PCE =	Tetrachloro	ethene			1,2,4-TMB =	1,2,4-Trime	thylbenzene				
	A = Not analyzed f					TPH-O=	Total Petrol	eum Hydroca	arbons as Oil			TCFM =	Trichloroflu	oromethan	ne		1,3,5-TMB =	1,3,5-Trime	thylbenzene				
	E = Not established					TRPH =	Total Recov	erable Petro	leum Hydroc	arbons		MEK =	Methyl Ethy	l Ketone	(2-Butanone))							
(a) = Sample was als	so analyzed	for PCBs an	d SVOCs. N	No PCBs or S	SVOCs were	detected																
SSI	L = Los Angeles R	WQCB So	il Screening I	evels - Guid	dance for VO	C-Impacted	Sites (March	1996) and P	etroleum-Imp	pacted Sites	(May 1996))											
SLCC-F	R = EPA Region 9	- "Screening	ng Level for C	Chemical Cor	ntaminants a	t Superfund	Sites" - Resid	ential Land	Use (Septeml	ber 2008)													
SLCC-	I = EPA Region 9	- "Screening	ng Level for C	Chemical Con	ntaminants a	t Superfund	Sites" - Com	nercial/Indu	strial Land U	se (Septemb	er 2008)												
CHHSL-F	R = Cal-EPA - "Ca	lifornia Hu	man Health S	Screeing Lev	els in Evalua	tion of Cont	aminated Pro	perties" - Re	sidential Lan	d Use (Janu	ary 2005)												
CHHSL-	I = Cal-EPA - "Ca	al-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Residential Land Us al-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Commercial/Industri																					
	I = Estimated cond			-																			

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XL:1576:SOILDATA-HISTHYDROCARBONS

0.27 = Concentration detected exceeds SSL. However, soil was excavated as part of the remediation efforts completed by BEA in 2006

TABLE 2 HISTORICAL (1994 - 1996) SOIL TESTING RESULTS - TITLE 22 METALS 11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

(concentrations in milligrams per kilogram - mg/kg)

Original in Color

								Total											
Firm	Samples ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
WEST PAI	RCEL - CLARI	FIERS (H	istorical Pai	nt/Steam C	leaning Ar	eas)													
PSII	HA-2@10'	08/04/94	<4	<4	117	0.8			14.4	28.1	19		<0.4	<0.7	<3.5	<0.3			58.7
	HA-3@4.5'	08/04/94	<4	<4	191	1.1	<0.2	40.8	17.8	31.1	26	0.05	1.9	23.4	<3.5	<0.3	<10	65.9	121
WEST PAI	RCEL - MAINT	ENANCE	SHOP																
PSII	B-5@4'	08/03/94	<4	32	119	0.7	<0.2	21.6	12.2	18.5	15	<0.02	<0.4	14.8	<3.5	<0.3	<10	41.4	46.4
WEST PAI	RCEL - EQUIP																		
PSII	HA-4@2'	08/04/94	<4	<4	112	0.8	<0.2	24	13.1	17.2	16	< 0.02	<0.4	14.7	<3.5	<0.3	<10	46.3	51
EAST PAR	RCEL - STORA	GE SHED																	
PSII	HA-1@2'	08/03/94	<4	<4	111	0.6	<0.2	26.8	12.6	18.1	28	0.02	<0.4	13.1	<3.5	<0.3	<10	31.1	56.4
EAST PAR	RCEL - ABAND	ONED CL	ARIFIERS																
PSII	B-6@10'	08/03/94	<4	43	224	0.8				31.5	26		<0.4	24.5	<3.5				66.7
	B-7@10'	08/04/94	<4	29	193	0.7	<0.2	30.7	15.4		22		<0.4	22.9	<3.5				87.6
	B-7@15'	08/04/94	<4	<4	54.9	0.4		9.4			<3	****	<0.4	7	<3.5	<0.3			27.2
	B-7@25'	08/04/94	<4		43.2	0.2		7.8			6		<0.4	6	<3.5	<0.3			27
	B-7@35'	08/04/94	<4	50	188	0.9	<0.2	30.4	19.4	44.4	27	0.09	<0.4	25.5	<3.5	0.3	<10	67.9	83.2
EAST PAR	RCEL - HISTOI	RICAL ST	AINED ARI																
PSII	B-1@2'	08/03/94	<4	55	259	1.1	<0.2			50.4	31		2.4	32.2	<3.5	<0.3			78.2
	B-2@2'	08/03/94	<4	<4	136	5.6				21.6	12		<0.4	<0.7	<3.5	<0.3			53.1
	B-3@2'	08/03/94	<4	45	127	1.1	<0.2	39.5	19.1	30.4	30		2.1	25.8	<3.5	<0.3			74.9
	B-4@2'	08/03/94	<4	19	111	0.6		18.3	7	17.5	14		1.5	10.4	<3.5	<0.3			40
	B-8@2'	08/04/94	<4	<4	148	0.6	1	71.1	46.2	113	47	0.05	36.8	100	<3.5	<0.3	<10	36.4	85.3
EAI	SS-1@3"	12/23/96	NA		NA	NA					NA		NA	NA	NA	NA			NA
	SS-2@3"	12/23/96	<6		77.3	<0.6		12.8			<6		<2.5	6	<8	<2.5			27
	SS-3@3"	12/23/96	NA	<5	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA			NA
	SS-5@1'-2'	12/23/96	NA	<5	NA	NA		NA	NA		NA		NA	NA	NA	NA			NA
	M.	AXIMUM	ND	55	259	5.6	1.9	71,1	46.2	113	47	0.09	36.8	100	ND	0.4	ND	79.8	121
		SSL	I NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
		SLCC-R	31		15,000	160			23	3,100	400		390	1,600	390	390			
		SLCC-I	410	1.6	190,000	2,000	810				800		5,100	20,000	5,100	5,100			
		CHHSL-R	30	0.07	5,200	150	1.7	100,000	660	3,000	150		380	1,600	380	380			
		CHHSL-I	380	0.07	63,000	1,700			3.200	38,000	3,500	180	4.800	16,000	4,800	4,800			
L	Not detected at				03,000	1,/00	7.3	100,000	3,200	30,000	3,300	100	7,0001	10,000	7,000	7,000		0,7901	.00,000

<= Not detected at laboratory reporting limit listed

XL:1576:SOILDATA-HISTMETALS 1 of 1

NA = Not analyzed for this chemical

NE = Not established

SSL = Los Angeles RWQCB Soil Screening Levels - Guidance for VOC-Impacted Sites (March 1996) and Petroleum-Impacted Sites (May 1996)

SLCC-R = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Residential Land Use (September 2008)

SLCC-I = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Commercial/Industrial Land Use (September 2008)

CHHSL-R = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Residential Land Use (January 2005)

CHHSL-I = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Commercial/Industrial Land Use (January 2005)

^{32 =} Concentration detected exceeds SLCC-R, SLCC-I, CHHSL-R and CHHSL-I standards

^{46.2 =} Concentration detected exceeds SLCC-R or CHHSL-R standards, but is below SLCC-I and CHHSL-I standards

TABLE 3
SUMMARY OF GROUND WATER ELEVATION AND TESTING RESULTS - HYDROCARBONS
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

(concentrations in micrograms per liter - ug/L)

		Well Casing Elevation	Depth to Ground Water	Ground Water Elevation							Carbon Tetra-						
Well	Date			(feet MSL)		TPH-D	трн-о	Toluene	Xylenes	Chloroform		1,1,1-TCA	1,1-DCA	1,2-DCA	1,1-DCE	TCE	PCE
MW-1	10/05/95	152,83	35.83	117.00	NA	NA	NA	<1	<2	1.9	<1	1.4	<1	<1	2.2	7.4	158
	01/13/97		38.33	114.50	NA	NA	NA	1.9	2.7	4.5	1.1	1.3	<0.5	0.5	4.3	11.4	93
	02/19/09		DRY		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	01/13/97	149.66	32.14	117.52	NA	NA	NA	<0.5	<1.0	1.5	<0.5	7.9	1.3	<0.5	33.2	14.5	296
	02/19/09		39.70	109.96	<50	<500	<3,000	<1	<2	<1	<1	<1	<1	<1	<1	<1	7.19

Maximum Contaminant Level NE NE NE 150 1,750 NE 0.5 200 5 0.5 6 5

Only those volatile organic compounds detected are listed. Sample collected from well MW-2 on February 19, 2009 also analyzed for ETBE, DIPE, MTBE, TAME, TBA and Ethanol Elevations for wells MW-1 and MW-2 based on established elevation (151.71 feet MSL) for off-site Phibro-Tech well MW-3

NA = Not analyzed for this chemical

NS = Not sampled

<= Not detected at laboratory report limit listed

NE= Not Established

1.1 = Concentration detected exceeds MCL

TABLE 4
SUMMARY OF GROUND WATER TESTING RESULTS - METALS
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per liter - mg/L)

							Total	Hexavalent											
Well	Date	Antimony	Arsenic	Bartum	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thailium	Vanadium	Zinc
MW-1	10/05/95	<0.1	<0.1	0.38	<0.01	<0.02	0.06	NA	< 0.03	<0.05	<0.12	<0.005	<0.05	<0.04	<0.1	<0.02	<0.16	0.07	0.09
	01/13/97	<0.1	<0.1	0.52	<0.01	< 0.02	0.08	NA	< 0.03	0.07	<0.12	<0.005	<0.05	<0.04	<0.1	<0.02	<0.16	0.13	0.15
	02/19/09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
													·						
MW-2	01/13/97	<0.1	<0.1	0.44	<0.01	< 0.02	0.09	NA	0.04	0.08	<0.12	<0.0005	<0.05	0.05	<0.1	< 0.02	< 0.16	0.14	0.19
	02/19/09	NA	NA	NA	NA	NA	<0.01	0.0039	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Ground water samples collected on January 13, 1997 were also analyzed on a filtered basis. No metals were detected in the filtered ground water samples

XL:1576:GWDATASUM-METALS 1 of 1

< = Not detected at laboratory reporting limit listed

NA = Not analyzed for this chemical

NS = Not sampled - well dry

TABLE 5
SOIL TESTING RESULTS - BEA REMEDIATION AUGUST 2006
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per kilogram - mg/kg)

			(8015M)	7	(826	(0B)					(6010)	B/7471A)				
			`						Total							
Sample ID	Date	TPH-G	TPH-D	ТРН-О	Toluene	Xylenes	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Vanadium	Zinc
B-7@5'	08/16/06	<0.5	<5	<50	<0.002	<0.004	5.8	200	62	17	17	7.6	<2	29		80
B-7@10'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
B-7@15'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7@18'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7West@5'	08/16/06	<0.5	<5	<50	<0.002	<0.004	4.7			14		6.4	<2	24		70
B-7West@10'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7West@15'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7West@18'	08/16/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7East@5'	08/16/06	<0.5	<5	<50	< 0.002	<0.004	5.8		46	11	17	6.1	<2			61
B-7East@10'	08/16/06	<0.5	<5	<50	< 0.002	< 0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7East@15'	08/16/06	<0.5	<5	<50	< 0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-7East@20'	08/16/06	<0.5	<5	<50	< 0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
													.,			
E-9West@5'	08/17/06	<0.5	146	183	<0.002	<0.004	4	159		22	47	46	3.3	52		101
E-9West@10'	08/17/06	<0.5	5.2	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9WEst@15'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9West@20'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9Center@5'	08/17/06	<0.5	<5	<50	< 0.002	<0.004	3.9	118	18	12	16	6.3	<2	17		54
E-9Center@10'	08/17/06	<0.5	8.8	<50	0.0046	0.0056	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9Center@15'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9Center@20'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9East@2'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA
E-9East@5'	08/17/06	<0.5	84	30J	<0.002	<0.004	3.6	115	20	14	37	16	13	97	64	69
E-9East@10'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9East@15'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E-9East@20'	08/17/06	<0.5	<5	<50	<0.002	<0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 5
SOIL TESTING RESULTS - BEA REMEDIATION AUGUST 2006
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in milligrams per kilogram - mg/kg)

			(8015M)		(826	0B)					(6010)	B/7471A)				
Sample ID	Date	ТРН-G	TPH-D	трн-о	Toluene	Xylenes	Arsenic	Barium	Total Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Vanadium	Zinc
	MAXIMUM	ND	146	183	0.0046	0.0056	5.8	200	62	22	47	46	13	97	105	101
	SSL	500	1,000	10,000	0.45	5.25	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	SLCC-R	NE	NE	NE	5,000	600	0.39	15,000	120,000	23	3,100	400	390	1,600	390	23,000
	SLCC-I	NE	NE	NE	46,000	2,600	1.6	190,000	150,000	300	41,000	800	5,100	20,000	5,200	310,000
	CHHSL-R	NE	NE	NE	NE	NE	0.07	5,200	100,000	660	3,000	150	380	1,600	530	23,000
	CHHSL-I	NE	NE	NE	NE	NE	0.24	63,000	100,000	3,200	38,000	3,500	4,800	16,000	6,700	100,000

Only those VOCs (including fuel oxygenates) and Title 22 Metals detected are listed

NA = Not analyzed for this chemical

ND = Not detected. Detection limits ranged from 0.005 mg/kg to 0.05 mg/kg

NE = Not established

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-O = Total Petroleum Hydrocarbons as Oil

SSL = Los Angeles RWQCB Soil Screening Levels - Guidance for VOC-Impacted Site (March 1996) and Petroleum-Impacted Sites (May 1996)

SLCC-R = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Residential Land Use (September 2008)

SLCC-I = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Commercial/Industrial Land Use (September 2008)

CHHSL-R = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Residential Land Use (January 2005)

CHHSL-I = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Commercial/Industrial Land Use (January 2005)

5.8 Concentration detected exceeds SLCC-R, SLCC-I, CHHSL-R and CHHSL-I standards

<= Not detected at laboratory reporting limit listed

SOIL TESTING RESULTS - EAI SUBSURFACE UNITS REMOVAL FEBRUARY 2009 11630-1170 Burke Street, Santa Fe Springs, CA 90670 (concentrations in milligrams per kilogram - mg/kg)

Original in Color

				(8015M)							(826	0B)						(8270C)	(8082)						(6010B	/7471A)					
	l,	Subsurface		(0025/12)			Ethyl-	Isopropyl-			I		n-Butyl	sec-Butyl	n-Propyl		4-Isopropyl	Bis(2-Ethylhexyl)	1 (0000)			T	Total		T	1,4,12,14)					
Sample ID	Date	Unit No.	TPH-G	TPH-D	трн-о	Acetone			Toluene 1	1.2.4-TMB	1,3,5-TMB			benzene		aphthalene			All PCBs	Arsenic	Barlum	Cadmium (Cobalt	Соррег	Lead	Mercury	Molybdenum	Nickel V	/anadium	Zinc
EXCAVATION	SOIL SAM	PLES											1																21101101	· madiant	RAFAC
Sample 2@6'	02/10/09	3	<0.1	<10	<50	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	< 0.005	<0.50	NA	3.92	160	<0.5	25.8	8.78	23.8	4,93	<0.01	<5.0	20.0	50.2	52.
Sample 3@10'	02/10/09	3	<0.1	<10	<50	<0.020	<0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.50	NA	2.85	176	<0.5	28.0	9.79	26.1	5.92	<0.01	<5.0	22.3	51.6	56.9
Sample 4@15	02/10/09	3	12.4	4,940	7,100	0.071	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.005	0,027	0.015	0.007	0.021	0.011	<0.50		1.54	99.2	<0.5	14.5	4.82	15.6	2.46	<0.01	<5.0	12.3	28.5	38.
	02/10/09	4 &5	<0.1	<10	<50	< 0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.50	NA	0.870	144	<0.5	22.7	6.68	14.8	2.88	< 0.01	<5.0	15.8	39.9	50.5
	02/10/09	4 &5	<0.1	<10	<50	<0.020	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.50		<0.3	177	<0.5	30.0	9.37	18.7	6.16	0.167	<5.0	20.2	52.4	56.8
Sample 7@4'	02/11/09	4 &5	<0.1	<10	<50	<0.020	< 0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.50		<0.3	163	<0.5	25.2	8.20	17.4	5.00	<0.01	<5.0	17.2	47.4	49.8
Sample 8@9'	02/11/09	4 &5	<0.1	<10	<50	<0.020	<0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	<0.005	< 0.005	<0.005	<0.50		<0.3	155	<0.5	28.0	8.81	23.2	5.87	<0.01	<5.0	20.2	52.2	54.6
Sample 9@4'	02/11/09	4 &5	<0.1	<10	<50	< 0.020	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.50		<0.3	145	<0.5	26.1	8.22	16.1	4.71	<0.01	<5.0	16.7	47.6	53.2
	02/11/09	4 &5	<0.1	<10	<50	<0.020	<0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.50		<0.3	176	<0.5	28.9	9.06	26.4	6.27	<0.01	<5.0	21.4	54.7	53.2 57.9
Sample 11@4'	02/11/09	4 &5	<0.1	<10	<50	<0.020	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	< 0.005	<0.50		<0.3	118	<0.5	20.0	6.52	14.3	3.67	< 0.01	<5.0	13.9	37.2	46.1
]	MAXIMUM	12.4	4,940	7,100	0.071	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	0.027	0.015	0.007	0.821	0.011	<0.50	NA	3.92	177	<0.5	30	9.79	26.4	6.27	0.167	0	22.3	54.7	57.9
SEDIMENT																															
Sediment	02/11/09	4&5	<0.1	<10	<50	-01020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.50		<0.200	102	3.16	113	59.5	99.4	81.8	0.0099	<5.0		22.0	699
		MAXIMUM	<0.1	<10	<50	<0.020	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.50	NA	<0.200	102	3.16	113	59.5	99.4	81.8	0.0099	<5.0	27.2	22.0	699
STOCKPILE SO		ES						·····																							
	01/28/09		<0.100	<10	<50	47020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.50		4.27	193	<0.5	27.2	9.37	32.8	7.79	<0.01	<5.0		27.4	69.2
	01/28/09		<0.100	<10	<50	0.000	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	. 0.552		3.56	141	<0.5	21.3	7.69	26.2	6.06	<0.01	<5.0		37.7	59.2
Stockpile C	02/11/09		<0.100	<10	<50	-0,020	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.50		<0.3	157	<0.5	29.1	9.54	23.4	5.93	0.0668	<5.0		52.6	56.1
Stockpile D	02/11/09		527	7,960	8,000	<0.020	0.884	0.610	2.31	27.0	4.51	8,27	3.53	2.25	2.03	4.31	3.73	17.2		<0.3	142	<0.5	224	9.91	973	41.8	0.167	13.0		31.3	215
L		MAXIMUM	527	7,960	8,000	0	0.884	0.610	2.31	27.0	4.51	8.27	3.53	2.25	2.03	4.31	3.73	17.2	<0.50	4.27	193	<0.5	224	9.91	973	41.8	0.167	13.0	25.7	52.6	215
									0.451	2 100	- Inval	405	2001	\	270	2.00	\				2001	2.00	220								
		SSL	500	1,000	10,000		0.9	NE	0.45	NE NE	NE	5.25	NE	NE NE	NE	NE NE		NE	14,5	NE	NE	NE TO	NE	NE	NE	NE	NE	NE		NE	NE
		SLCC-R	NE	NE NE	NE NE	01,000	5,7	2,200	5,000	87	NE NE	600	NE	NE	NE	3.9		35		0.39	15,000	70	120,000	23	3,100	400	23	390		390	23,000
		SLCC-I	NE	NE	NE.	01.0,000	29	11,000	46,000	400	NE	2,600	NE	NE	NE	20		120	*****	1.6	190,000	810	150,000	300	41,000	800	310	5,100		5,200	310,000
		CHHSL-R	NE	NE NE	NE NE		NE NE	NE NE	NE NE	NE NE	NE	NE NE	NE	NE NE	NE NE	NE NE		NE NE	****	0.07	5,200	1.7	100,000	660	3,000	150	18	380	1,600	530	23,00
		CHHSL-I	NE	NE	NE	NE.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE ₁	NE.	0.301	0.24	63,000	7.5	100,000	3,200	38,000	3,500	180	4,800	16,000	6,700	100,000

1 of 1

Only those chemicals detected are listed

< = Not detected at laboratory reporting limit listed

ND = Not detected

NE = Not established

SSL = Los Angeles RWQCB Soil Screening Levels - Guidance for VOC-Impacted Sites (March 1996) and Petroleum-Impacted Sites (May 1996)

SLCC-R = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Residential Land Use (September 2008)

SLCC-I = EPA Region 9 - "Screening Level for Chemical Contaminants at Superfund Sites" - Commercial/Industrial Land Use (September 2008)

CHHSL-R = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Residential Land Use (January 2005)

CHHSL-I = Cal-EPA - "California Human Health Screeing Levels in Evaluation of Contaminated Properties" - Commercial/Industrial Land Use (January 2005)

^{32 =} Concentration detected exceeds SLCC-1, CHHSL-1 or SSL standards
46.2 = Concentration detected exceeds SLCC-R or CHHSL-R standards, but is below SLCC-I and/or CHHSL-I standards

TABLE 7
SUMMARY OF WELL CONSTRUCTION DATA
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

	Date	Installed	Casing Diameter	Total Depth	Screen Interval	Slot Size	Well Elevation
Well	Completed	Ву	(inch)	(feet bgs)	(feet bgs)	(inch)	(feet MSL)
MW-1	10/03/95	EAl	2	53	33 - 53	0.020	152.83
MW-2	12/23/96	EAl	2	55	30 - 55	0.020	149.66

Note: Elevations for wells based on established elevation (151.71 feet MSL) for off-site Phibro-Tech well MW-3

TABLE 8
SOIL GAS TESTING RESULTS - VOCs EPA METHOD 8260B
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in micrograms per liter - ug/L)

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Chloroform	CTC	TCE	PCE
A4@5'	02/23/09	0.26	<1.0	<0.50	<0.50	< 0.10	<0.10	<0.10	< 0.10
A4@15'	02/23/09	0.15	<1.0	<0.50	<0.50	< 0.10	<0.10	< 0.10	2.9
A4@15' D	02/23/09	0.10	<1.0	< 0.50	<0.50	< 0.10	<0.10	< 0.10	2.4
A5@5'	02/23/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	<0.10	<0.10
A5@15'	02/23/09	<0.10	<1.0	<0.50	< 0.50	<0.10	<0.10	<0.10	2.4
B1@5'	02/24/09	<0.10	<1.0		< 0.50		<0.10	<0.10	0.18
B1@5' D	02/24/09	< 0.10	<1.0	<0.50	< 0.50		<0.10	<0.10	0.10
B1@15'	02/24/09	<0.10	<1.0	<0.50	< 0.50	<0.10	<0.10	0.15	6.6
DOG5	T 00/04/00	A 111	-1 O	-0.50l	<0.50	-0.10L	<0.10l	<0.10	0.47
B2@5'	02/24/09	0.11 <0.10	<1.0 <1.0		<0.50 <0.50		<0.10 <0.10	<0.10 0.36	0.47
B2@15'	02/24/09	<0.10	<1.0	<0.30	<0.30	<0.10	<0.10	0.30	12
B3@5'	02/24/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	0.34
B3@15'	02/24/09	<0.10	<1.0		<0.50		<0.10	0.59	14
D3@13	102/21/05	-0.10	-110	10.00	-0.00	0.10	-01101	0.07	
B4@5'	02/23/09	< 0.10	<1.0	<0.50	< 0.50	<0.10	< 0.10	< 0.10	0.17
B4@15'	02/23/09	0.16	<1.0		<0.50	<0.10	< 0.10	0.59	9.4
						1			
B5@5'	02/24/09	< 0.10	<1.0	<0.50	<0.50	<0.10	<0.10	< 0.10	0.24
B5@15'	02/24/09	< 0.10	<1.0	< 0.50	<0.50	< 0.10	<0.10	0.56	9.3
B6@5'	02/24/09	<0.10	<1.0		<0.50		<0.10	<0.10	<0.10
B6@15'	02/24/09	<0.10	<1.0	<0.50	<0.50	<0.10	< 0.10	0.41	5.4
C1@5'	02/24/09	< 0.10	<1.0		<0.50		< 0.10	<0.10	0.46
C1@15'	02/24/09	<0.10	<1.0	<0.50	< 0.50	<0.10	<0.10	0.12	7.9
55.051	1 00/04/00	-0.10	-11.0	-0.50	40.50	-0.10	-0.10	-0.10	0.07
C2@5'	02/24/09	<0.10	<1.0				<0.10	<0.10	0.27
C2@15'	02/24/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	0.35	5.8
C2@5!	02/24/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	< 0.10	0.42
C3@5' C3@15'	02/24/09	<0.10					<0.10	2.3	16
C3@13	02/24/03	\0.10	1.0	1 10.50	1 40.50	(0.10	\(\frac{10.10}{0.10}\)	2.5	10
C4@5'	02/24/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	< 0.10	<0.10
C4@15'	02/23/09	<0.10					<0.10		4.6
C4@15' D	02/23/09	<0.10					< 0.10	0.75	4.7
						<u> </u>			
C5@5'	02/23/09	<0.10	<1.0	<0.50	<0.50	<0.10	< 0.10	< 0.10	0.19
C5@15'	02/23/09	< 0.10	<1.0	<0.50	<0.50	<0.10	<0.10	0.49	4.1
C6@5'	02/23/09	<0.10		A CONTRACT OF THE PARTY OF THE			< 0.10		<0.10
C6@15'	02/23/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	0.34	2.2
D1@5'	02/23/09	<0.10					<0.10		
D1@15'	02/23/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	2.4

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TABLE 8
SOIL GAS TESTING RESULTS - VOCs EPA METHOD 8260B
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in micrograms per liter - ug/L)

D2@15' (02/23/09 02/23/09 02/23/09 02/23/09	0.16 0.11 <0.10 <0.10	<1.0 <1.0	<0.50 <0.50	<0.50 <0.50	<0.10 <0.10	<0.10 <0.10	<0.10 0.36	<0.10 6.1
D3@5' (02/23/09	<0.10			<0.50	< 0.10	< 0.10	0.36	6.1
			<1.0	-0.50				-,	V. 1
			<1.0	40 FA					
D3@15'	02/23/09	< 0.10		<0.50	< 0.50	< 0.10	<0.10	<0.10	<0.10
			<1.0	<0.50	<0.50	<0.10	<0.10	3.7	9.9
D4061	00/00/00	-0.10l	-1.0	-0.50	-0.50	-0.10[<0.10L	-0.10	0.26
	02/23/09	<0.10	<1.0	<0.50	<0.50		<0.10	<0.10	0.36
D4@15' (02/23/09	0.12	<1.0	<0.50	<0.50	<0.10	0.12	3.1	17
D5@5' (02/23/09	0.15	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10
	02/23/09	0.13	<1.0	<0.50	<0.50	<0.10	0.17	0.67	4.0
150015	02,23,07	0.15]	11.0	10.50	40.50		0.17	0.07	
D6@5' (02/23/09	0.14	<1.0	<0.50	< 0.50	< 0.10	<0.10	<0.10	<0.10
	02/23/09	0.12	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	0.50
			·						
E1@5' (PV 1) (02/23/09	< 0.10	<1.0		<0.50		<0.10	<0.10	0.15
	02/23/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	<0.10	0.16
E1@5' (PV 7) (02/23/09	< 0.10	<1.0	<0.50	< 0.50	< 0.10	< 0.10	< 0.10	0.14
E1@15' (02/23/09	0.11	<1.0	<0.50	<0.50	< 0.10	< 0.10	<0.10	6.8
	02/23/09	0.12	<1.0				<0.10	<0.10	<0.10
E2@15' (02/23/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	0.16	6.0
E2@6	02/23/09	<0.10	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10
	02/23/09	<0.10	<1.0		<0.50	L	<0.10	<0.10	0.10
E3@15'	02/23/09	<0.10	<1.0	<0.30	<0.30	<0.10	\0.10 _[\0.10	<u> </u>
E4@5'	02/23/09	0.18	<1.0	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10
	02/23/09	<0.10			3.22		0.12	1.7	5.8
	02/23/09	0.13	<1.0		<0.50		< 0.10	<0.10	<0.10
E5@15'	02/23/09	0.10	<1.0	< 0.50	<0.50	0.13	< 0.10	0.45	0.8

Only those volatile organic compounds detected are listed

D = Duplicate sample

PV = Purge volume

CTC = Carbon Tetrachloride

TCE = Trichloroethene

PCE = Tetrachloroethene

<= Not detected at laboratory reporting limit listed

TABLE 8
SOIL GAS TESTING RESULTS - VOCs EPA METHOD 8260B
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in micrograms per liter - ug/L)

Benzene | Toluene | Ethylbenzene | Xylenes | Chloroform CTC TCE **PCE** Sample ID Date SOIL SAMPLES COLLECTED FROM 5 FEET BGS < 0.10 < 0.10 02/23/09 0.26 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 A4@5' < 0.50 < 0.50 < 0.10 < 0.10 02/23/09 < 0.10 <1.0 < 0.10 < 0.10 A5@5' <0.10 <0.50 < 0.10 <0.10 < 0.10 <1.0 < 0.50 0.18 02/24/09 B1@5' < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 B1@5' D 02/24/09 < 0.10 <1.0 0.10 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.47 02/24/09 0.11 <1.0 B2@5' < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.34 B3@5' 02/24/09 < 0.10 <1.0 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.17 B4@5' 02/23/09 < 0.10 <1.0 < 0.50 <0.50 < 0.10 < 0.10 < 0.10 0.24 B5@5' 02/24/09 < 0.10 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 < 0.10 02/24/09 < 0.10 B6@5' <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.46 C1@5' 02/24/09 < 0.10 <0.10 <1.0 <0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.27 C2@5' 02/24/09 02/24/09 < 0.10 <1.0 < 0.50 <0.50 < 0.10 < 0.10 < 0.10 0.42 C3@5' < 0.10 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 < 0.10 C4@5' 02/24/09 < 0.50 <1.0 <0.50 < 0.10 < 0.10 < 0.10 0.19 < 0.10 C5@5' 02/23/09 02/23/09 < 0.10 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 < 0.10 C6@5' <1.0 < 0.50 <0.50 < 0.10 < 0.10 < 0.10 0.19 D1@5' 02/23/09 < 0.10 <0.50 <1.0 < 0.50 < 0.10 < 0.10 < 0.10 < 0.10 0.16 D2@5' 02/23/09 02/23/09 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 < 0.10 D3@5' < 0.10 D4@5' 02/23/09 < 0.10 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 0.36 02/23/09 0.15 <1.0 <0.50 <0.50 < 0.10 < 0.10 < 0.10 <0.10 D5@5' < 0.50 < 0.10 < 0.10 < 0.10 02/23/09 0.14 <1.0 < 0.50 < 0.10 D6@5' < 0.50 < 0.50 < 0.10 < 0.10 < 0.10 E1@5' (PV 1) 02/23/09 < 0.10 <1.0 0.15 < 0.10 < 0.10 02/23/09 <1.0 < 0.50 < 0.50 < 0.10 0.16 E1@5' (PV 3) < 0.10 < 0.10 < 0.10 <1.0 < 0.50 < 0.50 < 0.10 < 0.10 0.14 E1@5' (PV 7) 02/23/09 <0.50 < 0.10 < 0.10 0.12 <1.0 < 0.50 < 0.10 < 0.10 E2@5' 02/23/09 <0.50 < 0.10 < 0.10 < 0.10 02/23/09 < 0.10 <1.0 <0.50 < 0.10 E3@5'

< 0.50

< 0.50

28

0

0

<0.50

<1.0

<1.0

28

0

Ō

<1.0

0.18

0.13

28

8

29

0.26

0.603

< 0.10

< 0.10

28

0

0

< 0.10

< 0.10

<0.10

28

0

0

< 0.10

< 0.10

< 0.10

28

15

54

0.47

< 0.10

<0.10

28

0

0

< 0.10

< 0.50

< 0.50

28

0

0

<0.50

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02/23/09

02/23/09

Maximum

No. Detections

No. Samples Analyzed

Percentage Detections

E4@5'

E5@5'

TABLE 8
SOIL GAS TESTING RESULTS - VOCs EPA METHOD 8260B
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in micrograms per liter - ug/L)

Sample ID						Chloroform	CTC	TCE	PCE
SOIL SAMPI	LES COLL	ECTED FF	ROM 15 F	EET BGS					
A4@15'	02/23/09	0.15	<1.0	<0.50	<0.50	<0.10	<0.10	< 0.10	2.9
A4@15' D	02/23/09	0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	< 0.10	2.4
A5@15'	02/23/09	<0.10	<1.0	< 0.50	<0.50	< 0.10	< 0.10	< 0.10	2.4
B1@15'	02/24/09	<0.10	<1.0	<0.50	<0.50	< 0.10	<0.10	0.15	6.6
B2@15'	02/24/09	<0.10	<1.0	< 0.50	<0.50	< 0.10	< 0.10	0.36	12
B3@15'	02/24/09	< 0.10	<1.0	< 0.50	<0.50	< 0.10	<0.10	0.59	14
B4@15'	02/23/09	0.16	<1.0	< 0.50	< 0.50	< 0.10	< 0.10	0.59	9.4
B5@15'	02/24/09	<0.10	<1.0	< 0.50	<0.50	< 0.10	<0.10	0.56	9.3
B6@15'	02/24/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	0.41	5.4
C1@15'	02/24/09	<0.10	<1.0	< 0.50	< 0.50	<0.10	<0.10	0.12	7.9
C2@15'	02/24/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	0.35	5.8
C3@15'	02/24/09	< 0.10	<1.0	< 0.50	<0.50	<0.10	<0.10	2.3	16
C4@15'	02/23/09	< 0.10	<1.0	<0.50	<0.50	<0.10	<0.10	0.75	4.6
C4@15' D	02/23/09	< 0.10	<1.0	< 0.50	<0.50	< 0.10	<0.10	0.75	4.7
C5@15'	02/23/09	<0.10	<1.0	<0.50	<0.50	< 0.10	<0.10	0.49	4.1
C6@15'	02/23/09	< 0.10	<1.0	< 0.50	< 0.50	< 0.10	<0.10	0.34	2.2
D1@15'	02/23/09	< 0.10	<1.0	<0.50	<0.50	< 0.10	<0.10	< 0.10	2.4
D2@15'	02/23/09	0.11	<1.0	<0.50	<0.50	< 0.10	< 0.10	0.36	6.1
D3@15'	02/23/09	<0.10	<1.0	<0.50	<0.50	< 0.10	< 0.10	3.7	9.9
D4@15'	02/23/09	0.12	<1.0	< 0.50	<0.50	< 0.10	0.12	3.1	17
D5@15'	02/23/09	0.13	<1.0	< 0.50	<0.50		0.17	0.67	4.0
D6@15'	02/23/09	0.12	<1.0	<0.50	<0.50	< 0.10	<0.10	<0.10	0.50
E1@15'	02/23/09	0.11	<1.0	< 0.50	<0.50	<0.10	< 0.10	< 0.10	6.8
E2@15'	02/23/09	< 0.10	<1.0	< 0.50	< 0.50	<0.10	<0.10	0.16	6.0
E3@15'	02/23/09	<0.10	<1.0	< 0.50	< 0.50	< 0.10	<0.10	<0.10	0.88
E4@15'	02/23/09	< 0.10	1.0	0.65	3.22	0.15	0.12	1.7	5.8
E5@15'	02/23/09	0.10	<1.0	<0.50	<0.50	0.13	<0.10	0.45	0.8
	es Analyzed		27		27	27	27	27	27
No. Detections			1	1	1		3	20	27
Percentage	Detections	33	4	4	4	7	11	74	100
	Maximum	0.16	1.0	0.65	3.22	0.15	0.17	3.7	17
I	Marmall	0.10	1.0	0.05	3.66	0.13	U.1/	3.7	1/

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TABLE 9
SOIL GAS TESTING RESULTS - VOCs EPA METHOD TO-15
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670
(concentrations in micrograms per liter - ug/L)

Chemical	E3@5'	D6@15'	Trip Blank	
Propene	0.230	0.021	< 0.010	
Trichlorofluoromethane	<0.005	0.011	<0.005	
Acetone	0.32	0.550	< 0.020	
1,1-Dichloroethene	< 0.005	0.0059	< 0.005	
Carbon Disulfide	0.036	0.001	< 0.005	
1,1-Dichloroethane	< 0.005	0.0058	< 0.005	
2-Butanone (MEK)	0.023	0.0091	< 0.005	
Chloroform	< 0.005	0.024	< 0.005	
Benzene	0.0061	0.0058	< 0.005	
Carbon Tetrachloride	< 0.005	0.037	< 0.005	
TCE 1.77	∨ 0.016	0.054	< 0.005	
Toluene ३७६	√ 0.057	0.051	< 0.005	
PCE o. &3	√ 0.140	0.240	< 0.005	
Chlorobenzene	0.009	<0.005	< 0.005	
Ethylbenzene 🎺 🛎	0.015	0.011	< 0.005	
Xylenes &87	✓ 0.077	0.063	< 0.005	
1,2,4-Trimethylbenzene	0.017	0.0094	<0.005	
1,3,5-Trimethylbenzene	0.0058	<0.005	<0.005	

Only those volatile organic compounds detected are listed

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<= Not detected at laboratory reporting limit listed

TABLE 10 SUMMARY OF VOCs IN GROUND WATER BENEATH PILOT CHEMICAL AND PHIBRO-TECH, INC. SITES (concentrations in micrograms per liter - ug/L)

Well	Date	Chloroform	CTC	1,1-DCA	1,2-DCA	1,1-DCE	TCE	PCE	Benzene	Toluene	Ethylbenzene	Xylenes
Pilot Chemic	al Compa	ny			·							
MW-1	Apr-08	209J	ND	ND	387	ND	ND	ND	ND	34,600	11,700	67,000
MW-2	Apr-08	450	ND	ND	3,160	ND	ND	ND	ND	62,500	9,000	44,900
MW-3	Apr-08	89.9	ND	ND	46.5J	ND	ND	ND	ND	4,280	2,780	8,240
MW-4	Apr-08	ND	ND	ND	1.90	ND	1.40	0.57	ND	ND	ND	ND
MW-5	Apr-08	25.5	36.5	ND	ND	0.288J	1.00	7.00	ND	ND	ND	ND
MW-6	Apr-08	15.9	14.1	ND	3.51	0.216J	1.23	3.67	ND	ND	ND	ND
MW-7	Apr-08	1.70	0.43J	ND	16.6	ND	1.40	0.90	ND	ND	ND	ND.
MW-8	Apr-08	9.90	ND	ND	ND	ND	ND	1.40	ND	ND	ND	3.30
MW-9	Apr-08	13.7	ND	67	9.6	4.8	167	3.00	ND	ND	ND	ND
MW-10	Apr-08	19.5J	ND	ND	2,590	4.8	ND	ND	243	ND	ND	604
MW-11	Apr-08	1.8	0.065J	0.104J	1.80	0.067J	2.60	18.1	ND	ND	ND	ND
MA	XIMUM	450	36.5	67	3,160	4.8	167	18.1	243	62,500	11,700	67,000
Phibro-Tech	, Inc.											
MW-01D	Jul-08	ND	ND	ND	ND	2.40	34	ND	ND	ND	ND	ND
MW-01S	Jul-08	ND	ND	ND	ND	ND	6.70	4.50	ND	ND	ND	ND
MW-03	Jul-08	34	16	35	62	26	180	ND	ND	ND	730	88
MW-04	Jul-08	29	5.5	150	180		310	ND	ND	ND	ND	ND
MW-04A	Jul-08	5.50	ND	110	ND	9.70	68	1.90	ND	ND	ND	ND
MW-06B	Jul-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-06D	Jul-08	ND	ND	ND	ND	1.40	28	13	ND	ND	ND	ND
MW-07	Jul-08	ND	ND	6.60	0.53	1.10	10	2.60	ND	ND	ND	ND
MW-09	Jul-08	35	ND	78	21	24	110	6.50	ND	ND	ND	ND
MW-11	Jul-08	ND	ND	41	220	14	220	ND	ND	ND	500	ND
MW-14S	Jul-08	30	4.00	120	65	65	640	ND	ND	ND	ND	ND
MW-15D	Jul-08	ND	ND	ND	ND	ND	ND	1.60	ND	ND	ND	ND
MW-15S	Jul-08	5.40	ND	18	110	5.90	73	2.30	ND	ND	ND	ND
MW-16	Jul-08	ND	ND	88	3.60	12.00	26	2.40	ND	ND	ND	ND
MA	XIMUM	35	16	150	220	65	640	13	ND	ND	730	88

ND = Not detected

1,1-DCE = 1,1-Dichloroethene

CTC = Carbon tetrachloride

TCE = Trichloroethene

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

PCE = Tetrachloroethene

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TABLE 11
TOXICITY CRITERIA - HUMAN HEALTH SCREENING EVALUATION
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

	Chronic Inhalation Reference Dose	Inhalation Cancer Slope Factor
Chemicals of Concern	mg/m ³	$(ug/m^3)^{-1}$
Benzene	3.0E-02	2.9E-05
Toluene	3.0E-01	NC
Ethylbenzene	1.0E+00	2.5E-03
Xylenes	1.0E-01	NC
1,3,5-Trimethylbenzene (1,3,5TMB)	6.0E-03	NC
1,2,4-Trimethylbenzene (1,2,4TMB)	6.0E-03	NC
Propene	3.0E+00	NC
Trichlorofluoromethane	7.0E-01	NC
Acetone	3.5E-01	NC
Carbon Disulfide	8.0E-01	NC
2-Butanone (MEK)	4.9E+00	NC
1,1-Dichloroethane (1,1-DCA)	5.0E-01	1.6E-06
1,1-Dichloroethene (1,1-DCE)	7.0E-02	NC
Chlorobenzene	1.0E+00	NC
Chloroform	3.0E-01	5.3E-06
Carbon Tetrachloride	4.0E-02	4.2E-05
Trichloroethlene (TCE)	6.0E-01	2.0E-06
Tetrachloroethene (PCE)	3.5E-02	5.9E-06

All values from DTSC's Screening Model Lookup Tables except Propene and Inhalation Slope Factor for Ethylbenzene from OEHHA Toxicity Database NC = Not a carcinogen

XL:1576:TABLE_TOX 1 of 1

TABLE 12
VAPOR INTRUSION HEALTH RISK EVALUATION USING SOIL GAS DATA
(MAXIMUM CONCENTRATIONS DETECTED) FROM 5 FEET
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

	Maximum Concentration						
	Detected	Residentia	l Land Use	Commercial Land Use			
Chemical	(ug/m ³)	Cancer Risk	Hazard Quotient	Cancer Risk	Hazard Quotient		
Benzene	260	2.9E-06	7.3E-03	1.7E-06	4.6E-03		
Toluene	57	NC	1.7E-04	NC	9.9E-05		
Ethylbenzene	15	1.3E-08	1.2E-05	7.6E-09	7.1E-06		
Xylenes	77	NC	6.8E-04	NC	4.0E-04		
1,3,5-Trimethylbenzene (1,3,5-TMB)	5.8	NC	6.7E-04	NC	4.0E-04		
1,2,4-Trimethylbenzene (1,2,4-TMB)	17	NC	2.0E-03	NC	1.3E-03		
Propene	230	Not in I	Database	Not in D	Database		
Acetone	320	NC	1.1E-03	NC	6.6E-04		
Carbon Disulfide	36	NC	5.5E-05	NC	3.0E-05		
2-Butanone (MEK)	23	NC	3.9E-06	NC	2.3E-06		
Chlorobenzene	9.0	NC	7.0E-06	NC	4.2E-06		
Trichloroethlene (TCE)	16	1.1E-08	2.2E-05	6.7E-09	1.3E-05		
Tetrachloroethene (PCE)	470	9.2E-07	2.7E-03	5.5E-07	6.2E-03		
	Total Value	3.8E-06	1.5E-02	2.3E-06	1.4E-02		

NC= Not a Carcinogen

TABLE 13
VAPOR INTRUSION HEALTH RISK EVALUATION USING SOIL GAS DATA
(MAXIMUM CONCENTRATIONS DETECTED) FROM 15 FEET
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

	Maximum Concentration						
	Detected	Residentia	l Land Use	Commercial Land Use			
Chemical	(ug/m ³)	Cancer Risk	Hazard Quotient	Cancer Risk	Hazard Quotient		
Benzene	160	7.4E-07	2.0E-03	4.4E-07	1.2E-03		
Toluene	1,000	NC	1.2E-03	NC	7.3E-04		
Ethylbenzene	650	2.3E-07	2.1E-04	1.3E-07	1.3E-04		
Xylenes	3,220	NC	1.2E-02	NC	7.0E-03		
1,2,4-Trimethylbenzene (1,2,4-TMB)	9.4	NC	4.2E-04	NC	2.5E-04		
Propene	21	Not in I	Database	Not in I)atabase		
Trichlorofluoromethane	11	NC	5.8E-06	NC	3.4E-06		
Acetone	550	NC	7.8E-04	NC	4.6E-04		
Carbon Disulfide	1.0	NC	6.1E-07	NC	3.6E-07		
2-Butanone (MEK)	9.1	NC	3.8E-07	NC	6.3E-07		
1,1-Dichloroethane (1,1-DCA)	5.8	1.3E-09	3.7E-06	7.6E-10	2.2E-06		
1,1-Dichloroethene (1,1-DCE)	5.9	NC	3.2E-05	NC	1.9E-05		
Chloroform	150	NC	2.1E-04	NC	1.3E-04		
Carbon Tetrachloride	170	1.0E-06	1.4E-03	6.1E-07	8.5E-04		
Trichloroethlene (TCE)	3,700	1.1E-06	2.1E-03	6.4E-07	1.2E-03		
Tetrachloroethene (PCE)	17,000	1.3E-05	1.5E-01	8.0E-06	9.0E-02		
	Total Value	1.6E-05	1.7E-01	9.8E-06	1.0E-01		

NC = Not a Carcinogen

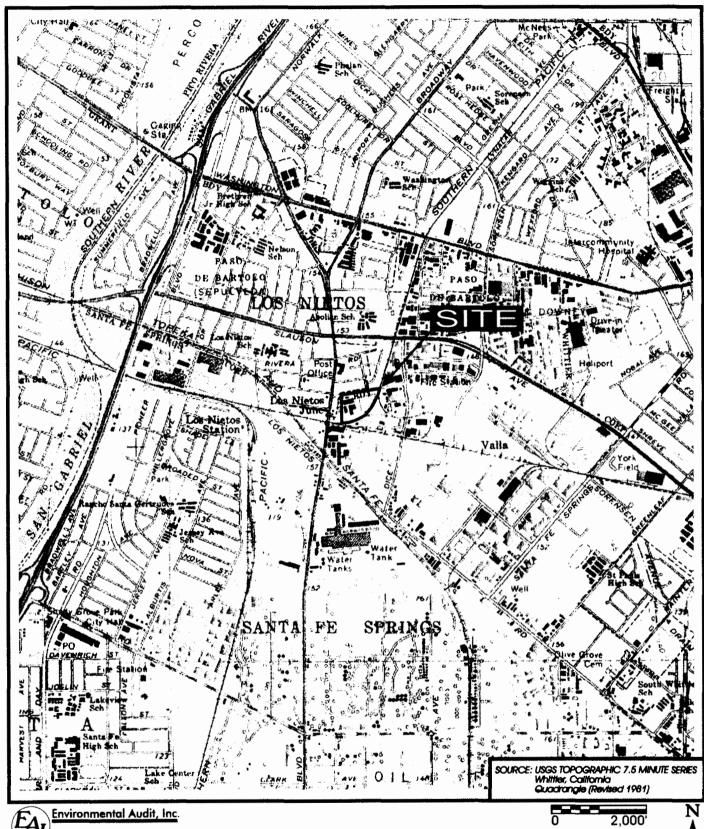
TABLE 14
VAPOR INTRUSION HEALTH RISK EVALUATION USING SOIL GAS DATA
(95% UCL FOR PCE AND MAXIMUM CONCENTRATIONS DETECTED) FROM 15 FEET
11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

	Maximum Concentration						
	Detected	Residentia	Land Use	Commercial Land Use			
Chemical/Depth	(ug/m ³)	Cancer Risk	Hazard Quotient	Cancer Risk	Hazard Quotient		
Benzene	160	7.4E-07	2.0E-03	4.4E-07	1.2E-03		
Toluene	1,000	NC	1.2E-03	NC	7.3E-04		
Ethylbenzene	650	2.3E-07	2.1E-04	1.3E-07	1.3E-04		
Xylenes	3,220	NC	1.2E-02	NC	7.0E-03		
1,2,4-Trimethylbenzene (1,2,4-TMB)	9.4	NC	4.2E-04	NC	2.5E-04		
Propene	21	Not in D	atabase	Not in Database			
Trichlorofluoromethane	11	NC	5.8E-06	NC	3.4E-06		
Acetone	550	NC	7.8E-04	NC	4.6E-04		
Carbon Disulfide	1.0	NC	6.1E-07	NC	3.6E-07		
2-Butanone (MEK)	9.1	NC	3.8E-07	NC	6.3E-07		
1,1-Dichloroethane (1,1-DCA)	5.8	1.3E-09	3.7E-06	7.6E-10	2.2E-06		
1,1-Dichloroethene (1,1-DCE)	5.9	NC	3.2E-05	NC	1.9E-05		
Chloroform	150	NC	2.1E-04	NC	1.3E-04		
Carbon Tetrachloride	170	1.0E-06	1.4E-03	6.1E-07	8.5E-04		
Trichloroethlene (TCE)	3,700	1.1E-06	2.1E-03	6.4E-07	1.2E-03		
Tetrachloroethene (PCE) (1)	8,123	6.4E-06	7.2E-02	3.8E-06			
	Total Value	9.5E-06	9.2E-02	5.6E-06	5.5E-02		

NC = Not a Carcinogen

(1) = 95% UCL Concentration

FIGURES



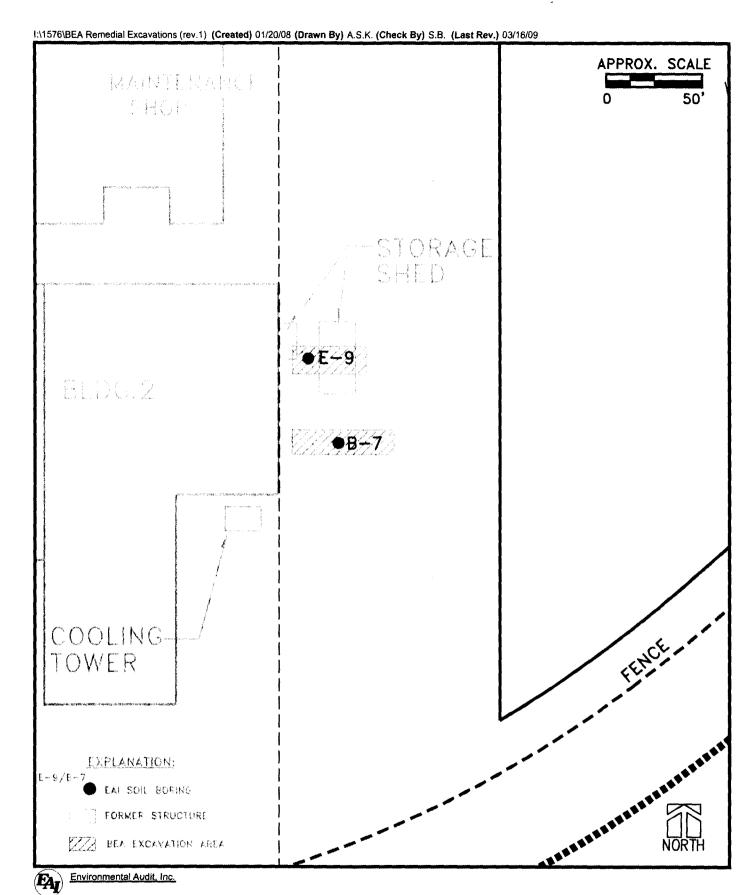
SITE LOCATION MAP 11630 - 11700 Burke Street Santa Fe Springs, CA 90670

Environmental Audit, Inc.

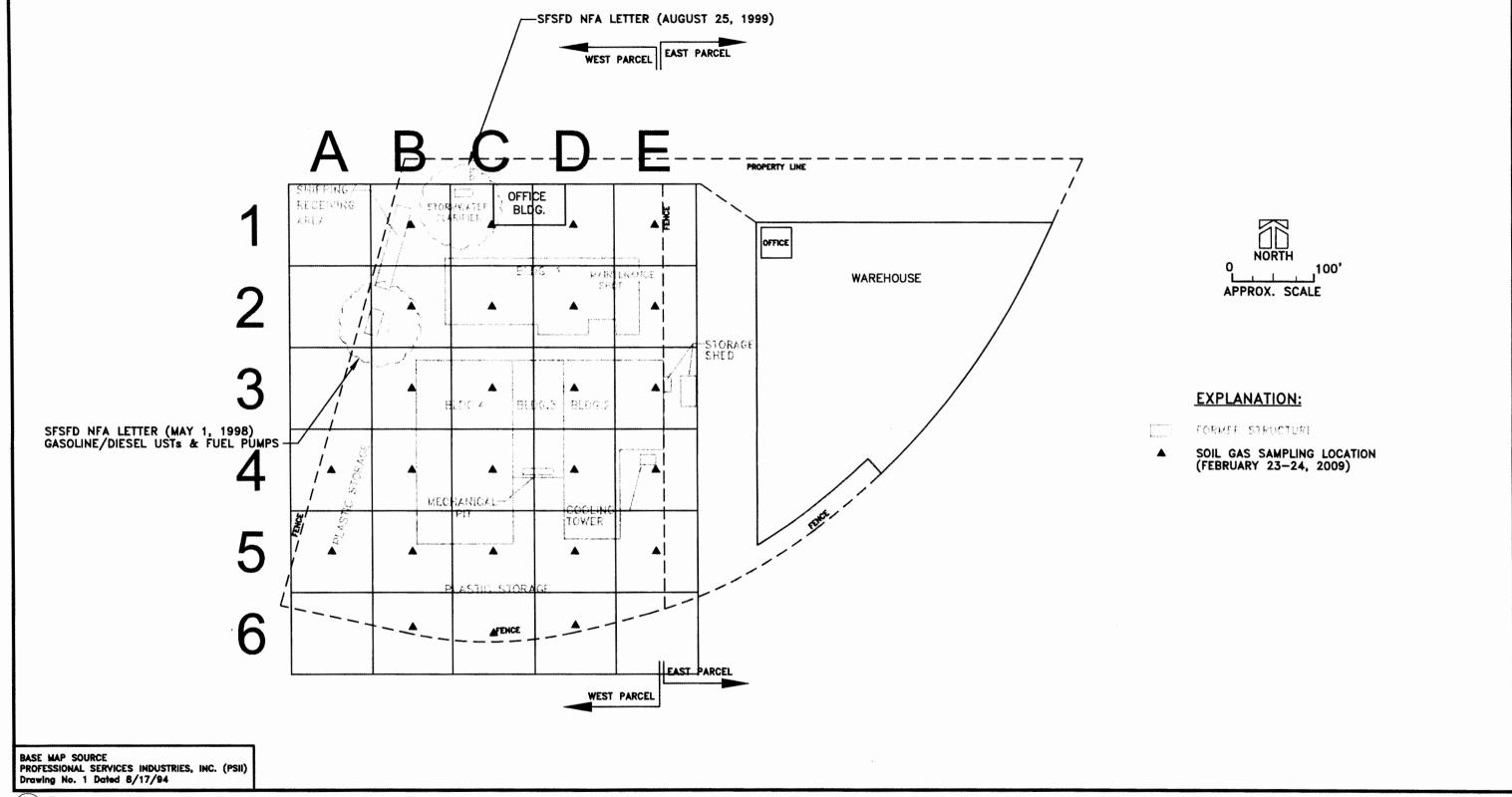
SITE PLAN 11630 - 11700 Burke Street Santa Fe Springs, CA 90670

Environmental Audit, Inc.

HISTORICAL MEDIA SAMPLING LOCATIONS 11630 - 11700 Burke Street Santa Fe Springs, CA 90670

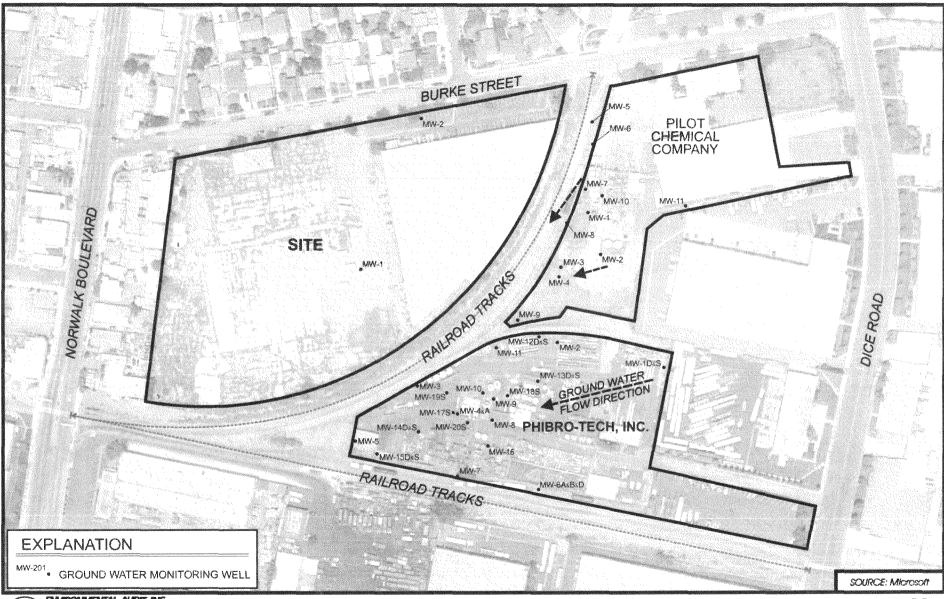


BEA REMEDIAL EXCAVATIONS - AUGUST 2006 11630 - 11700 Burke Street Santa Fe Springs, CA 90670



Environmental Audit, Inc.

SOIL GAS SAMPLING LOCATIONS 11630 - 11700 Burke Street Santa Fe Springs, CA 90670



EAT BWIRONMENTAL AUDIT INC.

AERIAL VICINITY MAP 11630 to 11700 Burke Street Santa Fe Springs, CA 90609





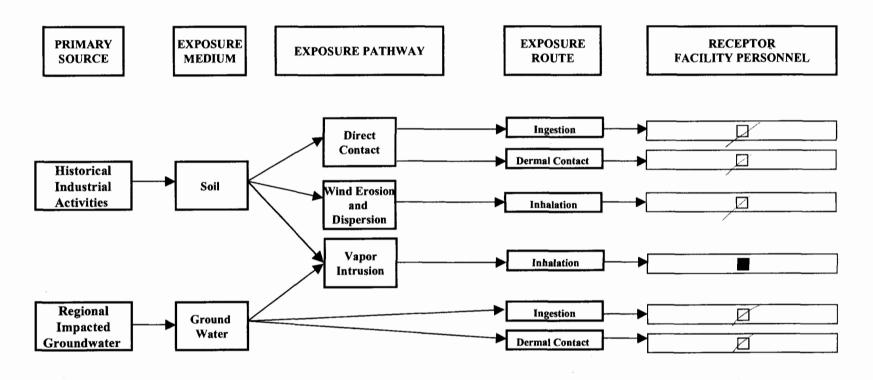
ENVIRONMENTAL AUDIT, INC.

CENTRAL BASIN GROUNDWATER PCE PLUME



SITE CONCEPTUAL MODEL

11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

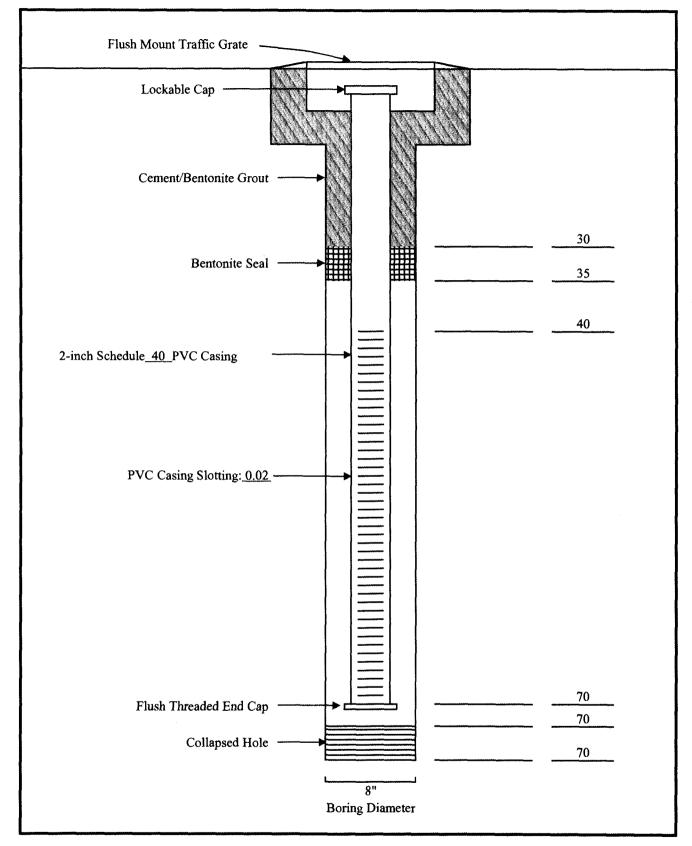


- PATHWAY IS CONSIDERED TO BE POTENTIALLLY COMPLETE
- PATHWAY IS CONSIDERED TO BE INCOMPLETE

FIGURE 9

Environmental Audit, Inc.

PROPOSED GROUND WATER MONITORING WELL LOCATIONS 11630 - 11700 Burke Street Santa Fe Springs, CA 90670



PROPOSED GROUND WATER MONITORING WELL CONSTRUCTION DETAILS

11630 - 11700 Burke Street, Santa Fe Springs, CA 90670

APPENDIX A

Ground Water Sampling Logs

GROUND WATER SAMPLING LOG



Environmental Audit, Inc. ®

Planning, Environmental Analysis and Hazardous Substances Management and Remediation 1000 ORTEGA WAY, SUITE A (714) 632-8521 PLACENTIA, CA 92870-7125 FAX (714) 632-6754

DATE:	2-19-09
PROJECT NO.:	1574
CLIENT: Burke	5
WELL NO.:	MW-2
WELL DIAMETER (INCHES):	2''
SAMPLED BY:	BUM

WELL PURGING INFORMATION WELL VOLUME FACTORS ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING: WELL CASING ID **VOLUME FACTOR** DEPTH TO WATER **DEPTH TO FREE** (INCHES) TOTAL DEPTH OF (ft bgs) PRODUCT (ft. bgs) 2.0 0.16 WELL (ft) 4.0 0.65 39.70 6.0 1.47 15.30 X 0.16 2.45 WELL VOLUME ONE CASING VOLUME **FACTOR** OF WATER (GALLONS) PURGE TIME (hrs): 11:58 FINISH **START** l:50 DEDICATED PUMP DOWN HOLE PUMP X OTHER BAILER METHOD: Grund Fos TYPE/MODEL: TEMP CONDUCTIVITY GALLONS pH TURBIDITY REMARKS PURGED (NTU) $(\mu S/cm)$ 72.8 B.06 1100 WELL SAMPLING INFORMATION TIME SAMPLED (hrs): 12:35 DEDICATED PUMP BAILER X DOWN HOLE PUMP OTHER METHOD: TYPE/MODEL: Voss Technologies COMMENTS:

APPENDIX B

Chain of Custody Records and Laboratory Reports

	1	1
Page	of	(

Chain of Custody Record

SAMPLING REQUIREMENTS: RCRA NPDES SDWA

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FedEx □ UPS □ Airborne □

Bus Hand

Environmental Audit, Inc. _•

Planning, Environmental Analysis and Hazardous Substances Management and Remediation

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PROJECT NO.	PROJECT	PROJECT NAME:					CON TYI				A	AN/	٩LY	'SIS	RE	QU	EST	ΈD	,			REMARKS
1576		Burke Street				T	T	Γ	Γ	T					Ì		T	T	T	٦,	* TPH-G, TPH-D, & TPH-O	
SAMPLER: (Signature)	L			PR	OJECT MANAGER:	1			1												Ä	** Full range plus oxygenates and ethano
BMech	em				Steve Bright			TUBE		B**	nium	Chromium									CONTAINERS	
SAMPLE NUMBER	DATE	ТІМЕ	COMP	GRAB	SAMPLE DESCRIPTION	GLASS	PLASTIC	1	•	VOCs 8260B**	200.7 Chromium	218.6 Hex. (NUMBER OF	
MW.2	3/9/09		1	7	Water	Ď	7	Ī	7	7	Ž	Ż			7	7	T	T	1	1	17	
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SAMPLES SHIPPED VIA:				\neg	SHIPPED BY: (Signature)				cou	RIE	R: (S	igna	ture)						RE	CED	EDI	FOR SY: (Signature) DATE/TIME

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 27, 2009

Mr. Steve Bright
Environmental Audit, Inc.
1000 Ortega Way, Suite A
Placentia, CA 92670-7125
(714)632-8521 Fax(714)632-6754

Project: 1576 / Burke Street

Lab I.D.: 090220-15

Dear Mr. Bright:

The analytical results for the water sample, received by our laboratory on February 20, 2009, are attached. The sample was received chilled, intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets

Vice President/Program Manager

wy h

Jesse Tu, Ph.D.

Laboratory Manager

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A

Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

DATE RECEIVED:02/20/09

MATRIX: WATER

DATE EXTRACTED: 02/25/09

DATE SAMPLED: 02/19/09

DATE ANALYZED: 02/25/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/27/09

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS METHOD: EPA 8015B

UNIT: ug/L = MICROGRAM PER LITER = PPB

 SAMPLE I.D.
 LAB I.D.
 C4-C10
 C11-C22
 C23-C35
 DF

 MW-2
 090220-15
 ND
 ND
 ND
 1

 METHOD BLANK
 ND
 ND
 ND
 1

PQL 50.0* 500 3000

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

* = TPH-GASOLINE ANALYZED USING 5030B/8260B PURGE & TRAP ON 02/23/09

Data Reviewed and Approved by:_

CAL-DHS ELAP CERTIFICATE No.: 1555

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8015B Water QC

Date Analyzed: <u>2/25/2009</u>

Units:

ug/L (PPB)

Matrix:

Water

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 090220-15 MS/MSD

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RP
C11-C22 RANGE	0	150000	142860	95%	145950	97%	2%	75-125	0-20%

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11-C22 RANGE	12000	13508	113%	75-125

Analyzed and Reviewed by:

Final Reviewer:

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER

DATE RECEIVED: 02/20/09
DATE ANALYZED: 02/20-25/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/27/09

SAMPLE I.D.: MW-2

DATE SAMPLED: 02/19/09

LAB I.D.: 090220-15

TOTAL METALS ANALYSIS

UNIT: MG/L = MILLIGRAM PER LITER = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	EPA METHOD
<pre>Chromium(Cr), Total Chromium VI(Cr 6)</pre>	ND 0.0039	0.01 0.0002	1	200.7 218.6

COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit Actual Detection Limit = PQL X DF

ND = Below the Actual Detection limit or non-detected

Data Reviewed and Approved by:

CAL-DHS ELAP CERTIFICATE No.: 1555

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A

Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER

DATE RECEIVED: 02/20/09

DATE SAMPLED: 02/19/09

DATE ANALYZED: 02/20-25/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED:02/27/09

METHOD BLANK FOR LAB I.D.: 090220-15

TOTAL METALS ANALYSIS

UNIT: MG/L = MILLIGRAM PER LITER = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	EPA METHOD
Chromium(Cr), Total	ND	0.01	1	200.7
Chromium VI(Cr 6)	ND	0.0002	1	218.6

COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection limit &r non-detected

Data Reviewed and Approved by:__

CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for TTLC Metals Analysis -- WATER MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS:

ANALYSIS DATE: 2/23/2009

Unit: mg/kg(ppm)

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Copper (Cu)	090223-LCS	1.00	99	PASS	0	1.00	1.02	102%	0.996	100%	2%
Lead (Pb)	090223-LCS	1.00	111	PASS	0	1.00	1.07	107%	1.11	111%	4%
Nickel (Ni)	090223-LCS	1.00	110	PASS	0	1.00	1.05	105%	1.11	111%	6%

ANALYSIS DATE.:

7414742	1010 2711211										
Analysis	Spk.Sample	LCS	LCS	LCS	Sample	Spike	MS	% Rec	MSD	% Rec	% RPD
1	ID	CONC.	%Rec.	STATUS	Result	Conc.		MS		MSD	
Mercury (Hg)		0.00250		FAIL	0	0.00250		0%		0%	#DIV/0!

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Copper (Cu)	PASS	PASS	PASS	PASS
Lead (Pb)	PASS	PASS	PASS	PASS
Nickel (Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 12 5	85 ~ 115	0 ~ 20

ANALYST:	D

FINAL REVIEWER:

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

QA/QC Report for Chromium, Hexavalent (Cr⁶⁺)

Analysis Method:

EPA 218.6

Analysis Date: <u>2/25/2009</u>

Matrix Type: Water

Conc. Unit: µg/L

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spike Sample ID:	090220-15
Sample Result	3.90
Spike Conc.	5.00
MS	8.80
%MS	98%
MSD	8.72
%MSD	96%
%RPD	2%
ACP %MS	75~125%
ACP %RPD	0~20%

Pass

Pass

Pass

LCS STD Recovery

Spike Conc.	5.00
LCS	5.28
%LCS	106%
ACP %LCS	85~115%

Pass

Analyzed/Reviewed by _____

Final Reviewed by

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER
DATE SAMPLED: 02/19/09

DATE RECEIVED: 02/20/09
DATE ANALYZED: 02/20/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/27/09

EPA 8260B (DIRECT INJECTION) FOR ALCOHOLS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.

LAB I.D.

ETHANOL

DF

MW-2

090220-15

ND

Method Blank

ND

PQL

10

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by:

CAL-DHS ELAP CERTIFICATE No.: 1555

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A

Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER

DATE RECEIVED:02/20/09

DATE SAMPLED: 02/19/09

DATE ANALYZED: 02/23/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/27/09

EPA 5030B/8260B FOR FUEL OXYGENATES UNITS: uG/L = MICROGRAM PER LITER = PPB

SAMPLE I.D.	LAB I.D.	ETBE	DIPE	MTBE	TAME	TBA	DF
MW-2	090220-15	ND	ND	ND	ND	ND	1
METHOD BL	ANK	ND	ND	ND	ND	ND	1
	PQL	5	5	3	5	50	

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

ETBE = ETHYL tert-BUTYL ETHER DIPE = ISOPROPYL ETHER

MTBE = METHYL tert-BUTYL ETHER

TAME = TERT-AMYL METHYL ETHER

TBA = TERTIARY BUTYL ALCOHOL

Data Reviewed and Approved by:

CAL-DHS ELAP CERTIFICATE No.: 1555

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX:WATER

DATE RECEIVED:02/20/09

DATE SAMPLED:02/19/09

REPORT TO:MR. STEVE BRIGHT

DATE REPORTED:02/27/09

SAMPLE I.D.: MW-2 LAB I.D.: 090220-15

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: uG/L = MICROGRAM PER LITER = PPB

PARAMETER	SAMPLE RESULT	PQL X1
ACETONE	ND	10
BENZENE	ND	1
BROMOBENZENE	ND	1
BROMOCHLOROMETHANE	ND	1
BROMODICHLOROMETHANE	ND	11
BROMOFORM	ND	1
BROMOMETHANE	ND	1
2-BUTANONE (MEK)	ND	10
N-BUTYLBENZENE	ND	1
SEC-BUTYLBENZENE	ND	1
TERT-BUTYLBENZENE	ND	1
CARBON DISULFIDE	ND	5
CARBON TETRACHLORIDE	ND	1
CHLOROBENZENE	ND	1
CHLOROETHANE	ND ND	1
CHLOROFORM	ND	1
CHLOROMETHANE	ND	1
2-CHLOROTOLUENE	ND	1
4-CHLOROTOLUENE	ND	11
DIBROMOCHLOROMETHANE	ND	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	1
1,2-DIBROMOETHANE	ND	1
DIBROMOMETHANE	ND	1
1,2-DICHLOROBENZENE	ND	1
1,3-DICHLOROBENZENE	ND	<u> </u>
1,4-DICHLOROBENZENE	ND	1
DICHLORODIFLUOROMETHANE	ND	1
1,1-DICHLOROETHANE	ND	1
1,2-DICHLOROETHANE	ND	1
1,1-DICHLOROETHENE	ND	1
CIS-1,2-DICHLOROETHENE	ND	1
TRANS-1,2-DICHLOROETHENE	ND	1
1,2-DICHLOROPROPANE	ND	_ 1
1,3-DICHLOROPROPANE	ND	1
TO BE	CONTINUED ON PAGE #	2

DATA REVIEWED AND APPROVED BY:

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax (714)632-6754

PROJECT: 1576 / Burke Street

MATRIX:WATER

DATE RECEIVED:02/20/09

DATE SAMPLED:02/19/09

REPORT TO:MR. STEVE BRIGHT

DATE REPORTED:02/27/09

SAMPLE I.D.: MW-2 LAB I.D.: 090220-15

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: ug/L = MICROGRAM PER LITER = PPB

PARAMETER	SAMPLE RESULT	
		PQL X1
2,2-DICHLOROPROPANE	ND ND	1
1,1-DICHLOROPROPENE	ND	1
CIS-1,3-DICHLOROPROPENE	ND ND	1
TRANS-1,3-DICHLOROPROPENE	ND ND	1
ETHYLBENZENE	ND ND	1
2-HEXANONE	ND	10
HEXACHLOROBUTADIENE	ND	
ISOPROPYLBENZENE	<u>ND</u>	1
4-ISOPROPYLTOLUENE	ND	1
4-METHYL-2-PENTANONE (MIBK)	ND	10
METHYL tert-BUTYL ETHER (MTBE)	ND	3
METHYLENE CHLORIDE	ND	5
NAPHTHALENE	ND	1
N-PROPYLBENZENE	ND	1
STYRENE	ND	1
1,1,1,2-TETRACHLOROETHANE	<u>ND</u>	1
1,1,2,2-TETRACHLOROETHANE	ND	1
TETRACHLOROETHENE (PCE)	7.19	1
TOLUENE	ND	1
1,2,3-TRICHLOROBENZENE	ND	1
1,2,4-TRICHLOROBENZENE	ND	1
1,1,1-TRICHLOROETHANE	ND	1
1,1,2-TRICHLOROETHANE	ND	1
TRICHLOROETHENE (TCE)	ND	1
TRICHLOROFLUOROMETHANE	ND	1
1,2,3-TRICHLOROPROPANE	ND	1
1,2,4-TRIMETHYLBENZENE	ND	1
1,3,5-TRIMETHYLBENZENE	ND	1
VINYL CHLORIDE	ND	1
M/P-XYLENE	ND	2
O-XYLENE	ND	1
	TM3 MT 031 T TM7 M	

COMMENTS PQL = PRACTICAL QUANTITATION LIMIT

ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY:

CAL-DHS CERTIFICATE # 1555

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER:

Environmental Audit, Inc.

1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER

DATE RECEIVED: 02/20/09

DATE SAMPLED: 02/19/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/27/09

REPORT TO: MR. SIEVE ERIGHT DATE REPORTED. VZ/Z//OS

METHOD BLANK FOR LAB I.D.: 090220-15

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: uG/L = MICROGRAM PER LITER = PPB

PARAMETER	SAMPLE RESULT	PQL X1
ACETONE	ND	10
BENZENE	ND	1
BROMOBENZENE	ND	<u> </u>
BROMOCHLOROMETHANE	ND ND	<u> </u>
BROMODICHLOROMETHANE	ND ND	1
BROMOFORM	ND	1
BROMOMETHANE	ND	1
2-BUTANONE (MEK)	ND ND	10
N-BUTYLBENZENE	ND	11
SEC-BUTYLBENZENE	ND	11
TERT-BUTYLBENZENE	ND	1
CARBON DISULFIDE	ND	5
CARBON TETRACHLORIDE	ND	<u> </u>
CHLOROBENZENE	ND	11
CHLOROETHANE	ND	1
CHLOROFORM	ND	1
CHLOROMETHANE	ND ND	1
2-CHLOROTOLUENE	ND	11
4-CHLOROTOLUENE	ND	11
DIBROMOCHLOROMETHANE	ND ND	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	1
1,2-DIBROMOETHANE	ND	1
<u>DIBROMOMETHANE</u>	ND	1
1,2-DICHLOROBENZENE	ND ND	1
1,3-DICHLOROBENZENE	ND	<u> </u>
1,4-DICHLOROBENZENE	ND ND	11
DICHLORODIFLUOROMETHANE	ND	1
1,1-DICHLOROETHANE	ND ND	<u> </u>
1,2-DICHLOROETHANE	ND	1
1,1-DICHLOROETHENE	ND	1
CIS-1,2-DICHLOROETHENE	ND	1
TRANS-1,2-DICHLOROETHENE	ND	1
1,2-DICHLOROPROPANE	ND	1
1,3-DICHLOROPROPANE	ND /	1
TO BE	CONTINUED ON PAGE #2	

DATA REVIEWED AND APPROVED BY:

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER:

Environmental Audit, Inc. 1000 Ortega Way, Suite A Placentia, CA 92670-7125

(714)632-8521 Fax(714)632-6754

PROJECT: 1576 / Burke Street

MATRIX: WATER

DATE RECEIVED: 02/20/09

DATE SAMPLED: 02/19/09

REPORT TO: MR. STEVE BRIGHT

DATE REPORTED: 02/23/09

METHOD BLANK FOR LAB I.D.: 090220-15

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: ug/L = MICROGRAM PER LITER = PPB

PARAMETER	SAMPLE RESULT	PQL X1
2,2-DICHLOROPROPANE	ND	1
1,1-DICHLOROPROPENE	ND	11
CIS-1,3-DICHLOROPROPENE	ND	1
TRANS-1,3-DICHLOROPROPENE	ND	1
ETHYLBENZENE	ND	1
2-HEXANONE	ND	10
<u>HEXACHLOROBUTADIENE</u>	ND	1
ISOPROPYLBENZENE	ND	1
4 - ISOPROPYLTOLUENE	ND	1
4-METHYL-2-PENTANONE (MIBK)	ND	10
METHYL tert-BUTYL ETHER (MTBE)	ND	3
METHYLENE CHLORIDE	ND	5
NAPHTHALENE	ND	1
N-PROPYLBENZENE	ND	1
STYRENE	ND	<u> </u>
1,1,1,2-TETRACHLOROETHANE	ND	<u> </u>
1,1,2,2-TETRACHLOROETHANE	ND	1 .
TETRACHLOROETHENE (PCE)	ND	1
TOLUENE	ND	1
1,2,3-TRICHLOROBENZENE	ND	1
1,2,4-TRICHLOROBENZENE	ND	11
1,1,1-TRICHLOROETHANE	ND	11
1,1,2-TRICHLOROETHANE	ND	1
TRICHLOROETHENE (TCE)	ND	1
TRICHLOROFLUOROMETHANE	ND	1
1,2,3-TRICHLOROPROPANE	ND	1
1,2,4-TRIMETHYLBENZENE	ND	1
1,3,5-TRIMETHYLBENZENE	ND	<u> </u>
VINYL CHLORIDE	ND	1
M/P-XYLENE	ND	22
O-XYLENE	ND	1
COMPAND DOL - DRACTICAL OLIAN	TOTO TOTO TOTO	

COMMENTS PQL = PRACTICAL QUANTITATION LIMIT

ND = NON-DETECTED OR BELOW THE PQL DATA REVIEWED AND APPROVED BY:

CAL-DHS CERTIFICATE # 1555

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905

Fax (909)590-5907

8260B QA/QC Report

Date Analyzed:

2/23~24/2009

Machine:

D

Matrix:

Water

Unit:

ug/L (PPB)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.:

090220-16

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Benzene	0	25.0	26.0	104%	26.2	105%	1%	75-125	0-20
Chlorobenzene	0	25.0	26.1	104%	25.8	103%	1%	75-125	0-20
1,1-Dichloroethene	0	25.0	24.3	97%	26.3	105%	8%	75-125	0-20
Toluene	0	25.0	25.8	103%	25.0	100%	3%	75-125	0-20
Trichloroethene (TCE)	0	25.0	26.3	105%	26.3	105%	0%	75-125	0-20

Lab Control Spike (LCS):

	- I -			
Analyte	spk conc	LCS	%RC	ACP %RC
Benzene	25.0	24.8	99%	75-125
Chlorobenzene	25.0	23.1	92%	75-125
Chloroform	25.0	25.8	103%	75-125
1,1-Dichlorothene	25.0	24.7	99%	75-125
Ethylbenzene	25.0	23.3	93%	75-125
o-Xylene	25.0	22.7	91%	75-125
m,p-Xylene	50.0	47.7	95%	75-125
Toluene	25.0	24.2	97%	75-125
1,1,1-Trichloroethane	25.0	25.5	102%	75-125
Trichloroethene (TCE)	25.0	23.7	95%	75-125

Surrogate Recovery	spk conc	ACP %RC	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.				090219-12	090219-13	090219-21	090219-22	090219-23	090219-24
Dibromofluoromethane	25.0	70-130	113%	110%	118%	104%	107%	1009%	108%
Toluene-d8	25.0	70-130	101%	102%	105%	104%	103%	99%	104%
4-Bromofluorobenzene	25.0	70-130	90%	93%	101%	93%	93%	90%	91%
Surrogata Pagayany	cok cope	ACD % DC	0/ DC	0/ DC	V PC	0/.DC	0/ BC	0/ DC	0/ DC

Surrogate Recovery	spk conc	ACP %RC	L %RC	%RC	/ %RC \	%RC	MRC	%RC	%RC
Sample I.D.			090219-25	090219-26	090220-15	p90220-16	090220-17	090220-18	090220-19
Dibromofluoromethane	25.0	70-130	109%	108%	112%	115%	113%	112%	116%
Toluene-d8	25.0	70-130	100%	102%	102%	101%	102%	101%	102%
4-Bromofluorobenzene	25.0	70-130	90%	94%	83% /	89%	85%	82%	88%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			090220-20	090220-21	090220-22	090220-24	090220-44	090220-45	090223-9
Dibromofluoromethane	25.0	70-130	117%	117%	117%	116%	118%	117%	114%
Toluene-d8	25.0	70-130	103%	107%	104%	101%	100%	113%	103%
4-Bromofluorobenzene	25.0	70-130	88%	89%	89%	87%	88%	89%	89%

^{* =} Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.

S.R. = Sample Results

spk conc = Spike Concentration

MS = Matrix Spike

Final Reviewer:

%RC = Percent Recovery

ACP %RC = Accepted Percent Recovery

MSD = Matrix Spike Duplicate

Analyzed/Reviewed By:

MOBILE GEOCHE							Cus		•			rd		_1	279	8	Date:	0.	\mathcal{H}_{q}	24,	109			7230	_
HOL	□ 3825) impala Dr. 5 Industry A	, Carisb v e nue, L	ad, CA 9 .akewoo	02010 • p d, CA 90	h 760.80 712 • ph	4.9678 - fa 562.426.6	991 -	.804. fax 56	9159 82.42	6.699	5	12	~0 ⁷		In.	H&P Outsi	de La	b: E		102				_
Client: Environt Address: 1000 - A 0 Placenta Email: strightee	Istage W	ay LEFB DM Phor	ne: [7]	4)63	<u>کا ۔ 35</u>	21 ex	1.224	Colle Clien Local	Proje	ect#	19	76		e 4	;;;,	Sa	Project	ct Cor	ntact:	Spr	Page:		_ o! \$r! D	: 1 1gh /	r
EDF: Yes D No		y - 1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	-	Sem	ple Recei	pt	H NVA 20°U	ext				8	260	В	May the title of t	TC)-15) TO-15		O ₂		and the state of t		-
Special Instructions:								H gasoline diesel	418.1 TRPH	21 for BTEX/MTBE	BTEX / Oxygenates	TPH gas	VOC's	DTSC/LARWQCB	Ketones	Full List	BTEX/MTBE	LCC (specify) 1, 1-1) F.A.	Naphthalene 32608	Methane	Fixed Gases CO2		and the second s	And the second s	lal # of containers
Sample Name	Con * V	nt Name	Purge Vol	Time	Date	Sample Type	Container Type	Ē	418	8021	18	TP	8	70	X.	E.	18	2	Z	₹	ι κ			15	Š
E3-5'	4231	-4.5 -4	330	0833	02/21		Sunma	4								Ŷ		X	-	-			-	-+	_
E3-5' D6-15' TRIPBLANK	*147	7	360	-	02/24	V	1									<u>Х</u>		X					-		_
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Relinquished by: (Signature) Relinquished by: (Signature)				(company)	[diam	y: (Signature) y: (Signature) y: (Signature)	mel	8							(compa			Date:	24/0	7	Tim	7.0	10	_
Relinquished by: (Signeture)				(company)			y: (Signature)									compe			Date:			Tim	ie:		

Sample disposal instruction:

Disposal @ \$2.00 each

Return to offent Piokup

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.



03 March 2009

Mr. Steve Bright **Environmental Audit** 1000-A Ortega Way Placentia, CA 92670 RE: EAU022409-11

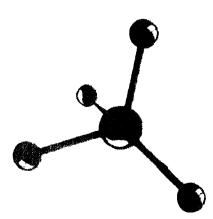
Enclosed are the results of analyses for samples received by the laboratory on 24-Feb-09. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal

Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845





1000-A Ortega Way Placentia, CA 92670 Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E3-5', P330cc	E902078-01	Vapor	24-Feb-09	24-Feb-09
D6-15', P360cc	E902078-02	Vарот	24-Feb-09	24-Feb-09
Trip Blank	E902078-03	Vapor	24-Feb-09	24-Feb-09



1000-A Ortega Way

Project: EAU022409-11

Project Number: 1576 / 11700 Burke St Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Placentia, CA 92670

Volatile Organic Compounds by EPA TO-15

	.	Reporting		Dilution	5.1	ъ			
Analyte	Result	Limit	Units	Factor	Batch	Prepared	Analyzed	Method	Notes
E3-5', P330cc (E902078-01) Vapor	Sampled: 24-Feb-09 Rec	eived: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	l	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
Propene	230	10	ug/m3	u	#	**	н	u	
Dichlorodifluoromethane	ND	10	•	**	*	"	ч	**	
Chloromethane	ND	5.0	"	11	"	11	**	"	
Dichlorotetrafluoroethane	ND	10	**	**	**	**	**	•	
Vinyl chloride	ND	5.0	"	"	"	11	н	it.	
1,3-Butadiene	ND	5.0	•	п	н	n	**	**	
Bromomethane	ND	5.0	n.	**	**	*	*	H.	
Chloroethane	ND	5.0	1*	"	Ħ	H	•	u	
Trichlorofluoromethane	ND	5.0	11	"	#	*	**	**	
Acetone	320	20	ıt	**	N	11	n	**	
1,1-Dichloroethene	ND	5.0	,	**	н		ч	n	
1,1,2-Trichlorotrifluoroethane	ND	10	II	и .	**	11	n	11	
Methylene chloride	ND	10	,,	Ħ	11	*	**	н	
Carbon disulfide	36	5.0	11	"	#	tr .	н	**	
trans-1,2-Dichloroethene	ND	5.0	11	ø	**	•	n	**	
Methyl tert-butyl ether	ND	5.0	н	n	**	•	**	ű	
Vinyl acetate	ND	10	u	Ħ	*	n	•	*	
1,1-Dichloroethane	ND	5.0	H	"	**	n	**	n	
2-Butanone	23	5.0	u	*	**	•	**	n	
n-Hexane	ND	5.0		ıı	Ħ	11	"	н	
cis-1,2-Dichloroethene	ND	5.0	H.	"	Ħ	n	**	п	
Ethyl acetate	ND	5.0	**	n n	11	n	p	**	
Chloroform	ND	5.0	11	,,	**	•	**	**	
Tetrahydrofuran	ND	5.0	Ħ	**	**	n	н	r	
1,1,1-Trichloroethane	ND	5.0	11	,,	и	**	,,	*	
1,2-Dichloroethane	ND	5.0	н	#	**	n	,,	μ	
Benzene	6.1	5.0	**	и	n	н	Ħ	"	
Carbon tetrachloride	ND	5.0	*	н	"	"	10	n	
Cyclohexane	ND	10	u.	*	**	**	n	ø	
n-Heptane	ND	5.0	11	п	*	n	*	"	
Trichloroethene	16	5.0	n	**	H	**	"	b	
1,2-Dichloropropane	ND	5.0	**	11	**				
1,4-Dioxane	ND	5.0	**	19	"	ŧı	#	**	
Bromodichloromethane	ND	5.0	н	"	**		n	н	
cis-1,3-Dichloropropene	ND	5.0	и		**	**	*	**	
4-Methyl-2-pentanone	ND	5.0	"	tr	"	11	,,	11	
trans-1,3-Dichloropropene	ND	5.0 5.0		**	Ħ	**	"	н	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022409-11

Project Number: 1576 / 11700 Burke St Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E3-5', P330cc (E902078-01) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
Toluene	57	5.0	ug/m3	1	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
1,1,2-Trichloroethane	ND	5.0	,	•	11	H	п	H	
2-Hexanone	ND	10	*	"	11	н	н	ч	
Dibromochloromethane	ND	5.0	,,	**	*1	ŧ	н	н	
Tetrachloroethene	140	5.0	,,	n	74	u	н	n	
1,2-Dibromoethane (EDB)	ND	5.0	,,	"	*11	· ·	н	ti .	
1,1,1,2-Tetrachloroethane	ND	5.0	**	v	**	U	"	ŧ	
Chlorobenzene	ND	5.0	**	19	**		n	n	
Ethylbenzene	15	5.0	*	**	n	n	"	n	
m,p-Xylene	56	5.0	n	u	**	n	n	tı	
Styrene	ND	5.0	"	h	11	H		**	
o-Xylene	21	5.0	n	н	11	Ħ	"	**	
Bromoform	ND	20	н	н	11	ħ	**	н	
1,1,2,2-Tetrachloroethane	ND	5.0	n	11	11	н	,	ń,	
4-Ethyltoluene	ND	5.0	**	11	#	Ħ	n	n	
1,3,5-Trimethylbenzene	5.8	5.0	11	,,	11	u	**	**	
1,2,4-Trimethylbenzene	17	5.0	**	"	"	п	n	**	
1,3-Dichlorobenzene	ND	10	**	"	"	п	**	n	
Benzyl chloride	ND	5.0	tr	m	"	**	н	"	
1,4-Dichlorobenzene	ND	10	*1	r	"	**	11	•	
1,2-Dichlorobenzene	ND	10		н	**	n	n	91	
1,2,4-Trichlorobenzene	ND	10	w	*	"	н	"	O	
Hexachlorobutadiene	ND	10	p	н		n	11	H	***
Surrogate: 1,2-Dichloroethane-d4		94.9 %	8	0-120	"	"	"	"	
Surrogate: Toluene-d8		102 %	8	0-120	"	n	**	"	
Surrogate: 4-Bromofluorobenzene		101 %	8	0-120	"	"	"	"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D6-15', P360cc (E902078-02) Vapor	Sampled: 24-Feb-09	Received: 24-Fe	b-09						·····
1,1-Difluoroethane (LCC)	ND	10	սք/1	1	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
Propene	21	10	ug/m3	19	"	Ħ	"	"	
Dichlorodifluoromethane	ND	10	**	**	"	**	**		
Chloromethane	ND	5.0	P	**	"	**	•	0	
Dichlorotetrafluoroethane	ND	10	r.	**	*		"	*	
Vinyl chloride	ND	5.0	*	"	"	**	"	U	
1,3-Butadiene	ND	5.0	"	**	*	11	**	**	
Bromomethane	ND	5.0	**	"		11		ŧŧ	
Chloroethane	ND	5.0	"	•	*	н	**	tt	
Trichlorofluoromethane	11	5.0	*	"		н		u	
Acetone	550	20		**	*	ħ	*	**	
1,1-Dichloroethene	5.9	5.0	11			ħ	n	n	
1,1,2-Trichlorotrifluoroethane	ND	10	"	*		h	*	h	
Methylene chloride	ND	10	**	•	"	4	"	n	
Carbon disulfide	10	5.0	**	"	**	11	"	4	
trans-1,2-Dichloroethene	ND	5.0		•	**	ħ	"	*	
Methyl tert-butyl ether	ND		*	,	**	'n		¢1	
Vinyl acetate	ND		ø		**	**		**	
1.1-Dichloroethane	5.8	5.0	,,		**	n	,	n .	
2-Butanone	9.1	5.0		,	**	н			
n-Hexane	ND		10		**	n	,,	11	
cis-1,2-Dichloroethene	ND		**	*	**	n	*	*	
Ethyl acetate	ND	,	н	"	"			**	
Chloroform	24		н	,	**	n	••	**	
Tetrahydrofuran	ND		*	,	u	**	*	н	
1,1,1-Trichloroethane	ND		"	,	•1	u		•	
1,2-Dichloroethane	ND		м	*	**	,		*	
Benzene	5.8		*	*	•		,,	#	
Carbon tetrachloride	37		,,		,	,		*	
Cyclohexane	ND		u	"	•		,,	,,	
n-Heptane	ND		*	*	•	**			
Trichloroethene	54		**	"	"	**	,,	ti .	
1,2-Dichloropropane	ND		*	**	*	*	"	**	
1,4-Dioxane	ND		11	"		"	*		
Bromodichloromethane	ND			*	•	n	**		
cis-1,3-Dichloropropene	ND		**	"	**	*	"	,,	
4-Methyl-2-pentanone	ND			*		**	,		
trans-1,3-Dichloropropene	ND			"		41	,,	pt .	
nans-1,3-Dienioropropere	NU	5.0							



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D6-15', P360cc (E902078-02) Vapor	Sampled: 24-Feb-09	Received: 24-Fe	b-09						
Toluene	51	5.0	ug/m3	1	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
1,1,2-Trichloroethane	ND	5.0	,,	•	н	Ħ	Ħ	11	
2-Hexanone	ND	10		**	n	n	11	u	
Dibromochloromethane	ND	5.0	p	"	"		n	11	
Tetrachloroethene	240	5.0	и	47	"	н	n	0	
1,2-Dibromoethane (EDB)	ND	5.0		n	"		**	U	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	*	н	ti	
Chlorobenzene	ND	5.0	п	"	11	11	**	0	
Ethylbenzene	11	5.0		u	19	•	n	4	
m,p-Xylene	48	5.0	r.	"	**	**	**	4	
Styrene	ND	5.0	и	n	**	**	,	ti ti	
o-Xylene	15	5.0	ļı	49	11	ıı	n	q	
Bromoform	ND	20	μ	11	"	"	n	tt	
1,1,2,2-Tetrachloroethane	ND	5.0	h	41	11	n	n	*1	
4-Ethyltoluene	ND	5.0	и	**	11	ıı	**	11	
1,3,5-Trimethylbenzene	ND	5.0	n	н	Ħ	n	н	а	
1,2,4-Trimethylbenzene	9.4	5.0	и	n	11	ŋ	n	п	
1,3-Dichlorobenzene	ND	10	н	Ħ	11	n	**	"	
Benzyl chloride	ND	5.0	н	и	11	n	**	а	
1,4-Dichlorobenzene	ND	10	I†	n	11	n	**	**	
1,2-Dichlorobenzene	ND	10	Ħ	**	n	n	**	п	
1,2,4-Trichlorobenzene	ND	10	11	**	11	ч	"	"	
Hexachlorobutadiene	ND	10	"	11	"		"	н	
Surrogate: 1,2-Dichloroethane-d4		98.6 %	80	0-120	"	"	"	"	
Surrogate: Toluene-d8		104 %	80	0-120	"	"	*	•	
Surrogate: 4-Bromofluorobenzene		103 %	80	0-120	"	n	**	r	



1000-A Ortega Way Placentia, CA 92670

Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Reported: 03-Mar-09

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA TO-15

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E902078-03) Vapor									
1,1-Difluoroethane (LCC)	ND	10	ug/I	I	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
Propene	ND	10	ug/m3	**	"	"	*	*	
Dichlorodifluoromethane	ND	10	•	"	**	"	н	"	
Chloromethane	ND	5.0	"	+	**	**		*	
Dichlorotetrafluoroethane	ND	10	"	"	"	"	n	"	
Vinyl chloride	ND	5.0	"	н	"	*	**	*	
1,3-Butadiene	ND	5.0	*	"	"	*		*	
Bromomethane	ND	5.0	"	*	"	"	**	"	
Chloroethane	ND	5.0	#	**	"	**		*	
Trichlorofluoromethane	ND	5.0	"	*	"	"	"	**	
Acetone	ND	20	*		"	*	19	*	
1,1-Dichloroethene	ND	5.0	*	**	"	"	**	**	
1,1,2-Trichlorotrifluoroethane	ND	10	**	•	"	*	"	•	
Methylene chloride	ND	10	"	41	#	**	**	•	
Carbon disulfide	ND	5.0	11	**	*	**	"	н	
trans-1,2-Dichloroethene	ND	5.0	"	"	*	•	**	"	
Methyl tert-butyl ether	ND	5.0	**	**	11	*			
Vinyl acetate	ND	10	"	,,	"		**	"	
1,1-Dichloroethane	ND	5.0	**	*	н	*	11	•	
2-Butanone	ND	5.0		**	"	n	**	*	
n-Hexane	ND	5.0	w	*	"	,,	**		
cis-1,2-Dichloroethene	ND	5.0	"	n	**	•	n	"	
Ethyl acetate	ND	5.0	*	*		**		n	
Chloroform	ND	5.0		н	*	11	**	**	
Tetrahydrofuran	ND	5.0	H	**	**	*	11	11	
1,1,1-Trichloroethane	ND	5.0		,	•			н	
1,2-Dichloroethane	ND	5.0	*		"			**	
Benzene	ND	5.0		,,	**	"		*	
Carbon tetrachloride	ND	5.0	*	**				,,	
Cyclohexane	ND	10	,,	,,	**	"	,	*	
n-Heptane	ND	5.0	и	*	"		"	,,	
Trichloroethene	ND ND	5.0 5.0		"	••		н	**	
1,2-Dichloropropane	ND	5.0 5.0		**		,	11	,,	
1,4-Dioxane	ND ND	5.0 5.0	,,	**	•	**	11	,,	
Bromodichloromethane					9		,,		
	ND ND	5.0			**			**	
cis-1,3-Dichloropropene	ND ND	5.0					,,	,,	
4-Methyl-2-pentanone	ND	5.0	,	"			"	,	
trans-1,3-Dichloropropene	ND	5.0	"	**	"			"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E902078-03) Vapor	Sampled: 24-Feb-09 Rec	eived: 24-Feb-09							
Toluene	ND	5.0	ug/m3	1	EC90203	02-Mar-09	02-Mar-09	EPA TO-15	
1,1,2-Trichloroethane	ND	5.0	r	n	#1	n	"	и	
2-Hexanone	ND	10	н	**	14	Ħ	11	11	
Dibromochloromethane	ND	5.0	r	**	**	11	n	n	
Tetrachloroethene	ND	5.0	**	*1	**	11	н	ti .	
1,2-Dibromoethane (EDB)	ND	5.0	n	**	**	11	n	"	
1,1,1,2-Tetrachloroethane	ND	5.0	**	*1	tf	**	н	**	
Chlorobenzene	ND	5.0	**	**	25	"	**	**	
Ethylbenzene	ND	5.0	*	**	11	н	**	**	
m,p-Xylene	ND	5.0	,,	Ħ	**	**	n	in.	
Styrene	ND	5.0	**	41	11	"	n	ŋ	
o-Xylene	ND	5.0	•	**	н	u	n	11	
Bromoform	ND	20	**	41	11	lı	n	U	
1,1,2,2-Tetrachloroethane	ND	5.0	**	**	**	11	n	ч	
4-Ethyltoluene	ND	5.0	**	61	**	11	n	и	
1,3,5-Trimethylbenzene	ND	5.0		**	"	Ħ	n	n	
1,2,4-Trimethylbenzene	ND	5.0	11	"	"	n	n	n	
1,3-Dichlorobenzene	ND	10	II .		**	*1	n	"	
Benzyl chloride	ND	5.0	U	"	"	71	n	н	
1,4-Dichlorobenzene	ND	10	"	n	"	**	**	n	
1,2-Dichlorobenzene	ND	10		"	**	n	**	n	
1,2,4-Trichlorobenzene	ND	10		p.	**	n	n	**	
Hexachlorobutadiene	ND	10	11		"	11	11	"	
Surrogate: 1,2-Dichloroethane-d4		104 %	80-	120	,,	"	"	"	
Surrogate: Toluene-d8		100 %	80-	120	"	n	"	"	
Surrogate: 4-Bromofluorobenzene	•	96.8 %	80-	120	n	"	"	p	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

RPD

%REC

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry

Reporting

Spike

Source

		Reporting		Spike	Source	0/220	76KEC		KFD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EC90203 - TO-15										
Blank (EC90203-BLK1)				Prepared &	Analyzed:	02-Mar-09	***************************************		***	
,1-Diffuoroethane (LCC)	ND	10	ug/l							
Propene	ND	10	ug/m3							
Dichlorodifluoromethane	ND	10	n							
Chloromethane	ND	5.0	Ħ							
Dichlorotetrafluoroethane	ND	10	11							
/inyl chloride	ND	5.0	,							
,3-Butadiene	ND	5.0	,							
Bromomethane	ND	5.0	ь							
Chloroethane	ND	5.0	19							
Trichlorofluoromethane	ND	5.0	**							
Acetone	ND	20	"							
,1-Dichloroethene	ND	5.0	•							
,1,2-Trichlorotrifluoroethane	ND	10	n							
Methylene chloride	ND	10	4							
Carbon disulfide	ND	5.0	*							
rans-1,2-Dichloroethene	ND	5.0	*							
Methyl tert-butyl ether	ND	5.0	þŧ							
Vinyl acetate	ND	10	**							
,1-Dichloroethane	ND	5.0	*							
2-Butanone	ND	5.0	*							
n-Hexane	ND	5.0	"							
sis-1,2-Dichloroethene	ND	5.0	**							
Ethyl acetate	ND	5.0	**							
Chloroform	ND	5.0	**							
letrahydrofuran	ND	5.0								
1,1,1-Trichloroethane	ND	5.0	11							
1,2-Dichloroethane	ND	5.0	w							
Benzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Cyclohexane	ND	10								
n-Heptane	ND	5.0	**							
Trichloroethene	ND	5.0	17							
1,2-Dichloropropane	ND	5.0	#							
1,4-Dioxane	ND	5.0	,,							



Environmental Audit 1000-A Ortega Way Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

Reporting

Reported: 03-Mar-09

RPD

%REC

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry

Spike

Source

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EC90203 - TO-15									······	
Blank (EC90203-BLK1)				Prepared &	Analyzed:	02-Mar-09				- transmission
Bromodichloromethane	ND	5.0	ug/m3							
cis-1,3-Dichloropropene	ND	5.0	**							
4-Methyl-2-pentanone	ND	5.0	*							
trans-1,3-Dichloropropene	ND	5.0	*							
Toluene	ND	5.0								
1,1,2-Trichloroethane	ND	5.0	**							
2-Hexanone	ND	10	*							
Dibromochloromethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	**							
1,2-Dibromoethane (EDB)	ND	5.0	*							
1,1,1,2-Tetrachloroethane	ND	5.0	**							
Chlorobenzene	ND	5.0	"							
Ethylbenzene	ND	5.0	**							
n,p-Xylene	ND	5.0	*							
Styrene	ND	5.0	*1							
o-Xylene	ND	5.0	*							
Bromoform	ND	20	49							
1,1,2,2-Tetrachloroethane	ND	5.0	n							
4-Ethyltoluene	ND	5.0	u							
1,3,5-Trimethylbenzene	ND	5.0	*							
1,2,4-Trimethylbenzene	ND	5.0	#							
1,3-Dichlorobenzene	ND	10	**							
Benzyl chloride	ND	5.0								
1,4-Dichlorobenzene	ND	10	*							
1,2-Dichlorobenzene	ND	10								
1,2,4-Trichlorobenzene	ND	10	,							
Hexachlorobutadiene	ND	10	,				···			
Surrogate: 1,2-Dichloroethane-d4	205		#	206		99.8	80-120			
Surrogate: Toluene-d8	198		н	192		103	80-120			
Surrogate: 4-Bromofluorobenzene	341		*	364		93.4	80-120			



1000-A Ortega Way Placentia, CA 92670 Project: EAU022409-11

Project Number: 1576 / 11700 Burke St Project Manager: Mr. Steve Bright Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15 - Quality Control H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC90203 - TO-15										
LCS (EC90203-BS1)				Prepared &	: Analyzed:	02-Mar-09				
Propene	41.0	10	ug/m3	35.0		117	65-135	***************************************		
Dichlorodifluoromethane	109	10	•	101		108	65-135			
Chloromethane	46.8	5.0	"	42.0		112	65-135			
Dichlorotetrafluoroethane	152	10	11	142		108	65-135			
Vinyl chloride	53.9	5.0	"	52.0		104	65-135			
,3-Butadiene	45.8	5.0	,,	44.8		102	65-135			
Bromomethane	91.5	5.0		79.2		116	65-135			
Chloroethane	60.7	5.0	*	53.6		113	65-135			
Trichlorofluoromethane	132	5.0	*	113		116	65-135			
Acetone	54.3	20	17	48.4		112	65-135			
1,1-Dichloroethene	66.8	5.0	*	80.8		82.7	65-135			
1,1,2-Trichlorotrifluoroethane	161	10	•	155		103	65-135			
Methylene chloride	75.5	10		70.8		107	65-135			
Carbon disulfide	64.5	5.0		63.2		102	65-135			
rans-1,2-Dichloroethene	70.6	5.0	**	80.8		87.4	65-135			
Methyl tert-butyl ether	70.2	5.0	"	73.6		95.3	65-135			
Vinyl acetate	71.1	10		72.0		98.8	65-135			
,1-Dichloroethane	86.3	5.0	n	82.4		105	65-135			
2-Butanone	52.1	5.0	"	60.0		86.9	65-135			
n-Hexane	81.4	5.0		72.0		113	65-135			
eis-1,2-Dichloroethene	84.6	5.0	*	80.0		106	65-135			
Ethyl acetate	79.1	5.0	**	73.6		107	65-135			
Chloroform	114	5.0	*	99.2		115	65-135			
Tetrahydrofuran	62.4	5.0	•	60.0		104	65-135			
1,1,1-Trichloroethane	124	5.0	"	111		111	65-135			
1,2-Dichloroethane	91.2	5.0	"	82.4		111	65-135			
Senzene	69.7	5.0	"	64.8		108	65-135			
Carbon tetrachloride	145	5.0	"	128		113	65-135			
Cyclohexane	75.4	10	"	70.4		107	65-135			
-Heptane	89.9	5.0	"	83.6		108	65-135			
Trichloroethene	113	5.0	**	110		103	65-135			
,2-Dichloropropane	105	5.0	и	94.4		131	65-135			
1,4-Dioxane	64.0	5.0	*	73.6		87.0	65-135			
Bromodichloromethane	142	5.0	"	137		104	65-135			



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022409-11

Project Number: 1576 / 11700 Burke St

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Reported: 03-Mar-09

Volatile Organic Compounds by EPA TO-15 - Quality Control H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC90203 - TO-15	Readil		O.H.W.	2.0101	710001	/ 44470	Limits	1012	Cimi	110163
				D 10		00.14				
LCS (EC90203-BS1)	····				Analyzed:	02-Mar-09				****
cis-1,3-Dichloropropene	84.8	5.0	ug/m3	92.4		91.7	65-135			
4-Methyl-2-pentanone	81.8	5.0	**	83.2		98.3	65-135			
trans-1,3-Dichloropropene	84.8	5.0	H	92.4		91.8	65-135			
Toluene	80.3	5.0	**	76.8		105	65-135			
1,1,2-Trichloroethane	118	5.0	"	111		106	65-135			
2-Hexanone	62.8	10	31	83.2		75.4	65-135			
Dibromochloromethane	171	5.0	,,	174		98.5	65-135			
Tetrachloroethene	138	5.0	н	138		99.4	65-135			
1,2-Dibromoethane (EDB)	151	5.0	"	157		96.4	65-135			
1,1,1,2-Tetrachloroethane	151	5.0	н	140		108	65-135			
Chlorobenzene	99.3	5.0	**	93.6		106	65-135			
Ethylbenzene	91.3	5.0	R	88.4		103	65-135			
m,p-Xylene	178	5.0	n	177		101	65-135			
Styrene	81.2	5.0	**	86.8		93.6	65-135			
o-Xylene	86.9	5.0	"	88.4		98.3	65-135			
Bromoform	746	20	"	840		88.8	65-135			
1,1,2,2-Tetrachloroethane	120	5.0	,,	140		85.9	65-135			
4-Ethyltoluene	77.4	5.0	н	100		77.4	65-135			
1,3,5-Trimethylbenzene	86.4	5.0	*1	100		86.4	65-135			
1,2,4-Trimethylbenzenc	69.4	5.0	**	100		69.4	65-135			
1,3-Dichlorobenzene	94.9	10	H	122		77.5	65-135			
Benzyl chloride	62.4	5.0	n	105		59.5	65-135			QL-1
1.4-Dichlorobenzene	94.9	10	41	122		77.5	65-135			
1,2-Dichlorobenzene	86.4	10	**	122		70.6	65-135			
1,2,4-Trichlorobenzene	52.7	10	**	151		34.8	65-135			QL-1
Hexachlorobutadiene	92.0	10	"	218		42.3	65-135			QL-
Surrogate: 1,2-Dichloroethane-d4	214		"	206		104	80-120			
Surrogate: Toluene-d8	192		"	192		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	383		*	364		105	80-120			



Project: EAU022409-11

1000-A Ortega Way Placentia, CA 92670 Project Number: 1576 / 11700 Burke St

Project Manager: Mr. Steve Bright

Reported: 03-Mar-09

Notes and Definitions

QL-1L The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is

qualified and should be considered an estimate only.

DET Analyte DETECTED

Analyte NOT DETECTED at or above the reporting limit ND

NR

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

	MOBILE GEOCHEMIST	RY		C	hai	in	of	Cus	sto	od	y F	Rec	CO	rd				ı	Date:	0	2/,	23	109	1			_
: •	HQP	2470 Impala Dr., 3825 Industry Av											s. 6 99	5	E90 CX)21 92:	169 301	i	H&P F	³rojec	1#£	AU	022	<u>(30</u>	9-3	581/	L
	Client: ENVIRONM	ental Audit	-							Collec Client Location				el B	CV	av e s	ez H.,	54	Project Y	ct Con	ntact:	510	age:	 B	of	2 ht	
	EDF: Yes No Global ID:		- e: [. (/ / .	Sample Intact: [Seal Int	e Recei Yes [act: Yes]	pt] No ′es □ No	No □		. F	ext				8	260	В)-15		T0-15		02 🗌 N2				
•	Special Instructions:		1.100							gasoline diesel	тврн	r BTEX/MTBE	Oxygenates	SI		DTSC/LARWQCB	v		ИТВЕ	pecify) 1, 1- DFA	alene	eg.	Gases □ CO2 □				of containers
:	Sample Name	No tes	(/c) Purge Vol	Time	Date		mple ype	Contai Typi		TPH	418.1 T	8021 for	BTEX/	TPH gas	VOC's	DTSC/I	Ketones	Full List	BTEX/MTBE	LCC (specify)	Naphthalene	Methane	Fixed (1	Tolai #
01	E1-5	IPX	110	8:01	12/23/0	9 V4	por	Syrin	190							×				X							Ī
03	<i>k</i> 1-5	374	330	8:02		-	-								-	H	-			H			\vdash			+	ł
	£1-15	<u> </u>	360	9.18	-		+-	+ +								+			-	+						\dashv	ŀ
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弘	F3-5		330	4:14									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,														
57	£5-15		360	9:47																							
38	£5-5		330	9:49			1_						***********														_
29	D6-15		360	10-25		_	1_									Ш										$\perp \downarrow \downarrow$	L
0	Relinquished by (Signature)	,		(company) (大工	V			y: (Signate	1/1/	nie!	1	Ch	AN.	<u></u> کی		V		(comp		V	Date:	123	3/09	'	me: 14:	00 N	L
	Relinquished by: (Signature)			(company)		Rec	eived b	y: (Signati	vfe)		0		((comp	any)		Date:			Tin	ne:		
	Relinquished by: (Signature)			(company)		Rec	eived b	y: (Signatı	ure)									(comp	any)		Date:			Tin	ne		
. 1	*Signature constitutes authorization to p	roceed with analysis and accep	tance of cor	ndition on be	ick.	San	nple dis	posel instr	ruction	7.] Disp	osal @	\$2.00	each	ī		etum t	o client			Pickup					_

Chain of Custody Record Date: 02/23/69 H&P Project # £44022369-581/44 MOBILE - GEOCHEMISTRY 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995 Outside Lab: Environmenta sbright genvaudit.com Phone (714)632-8521 8260B TO-15 EDF: Yes □ No □ Sample Receipt Intact: Yes No Global ID: Seal Intact: Yes No No N/A Cold: Yes No N/A (Received on Site) diesel Special Instructions: õ BTEX/MTBE BTEX / Oxygenates Total # of containers DTSC/LARWQCB TPH 🗌 gasoline LCC (specify) 1 Naphthalene Gases BTEX/MTBE 418.1 TRPH TPH gas Ketones Full List VOC's Fixed 1) of es Container Sample Date Type Type Sample Name Relinquished by: (Signature

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Relinquished by: (Signature)

Sample disposal instruction

Received by: (Signature)

(company)

Disposal @ \$2.00 each

Return to client

(company)

Pickup

MOBILE GEOCHEMISTRY

Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159 EB9 2302

3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: 2-23-09
H&P Project # EAU 022 309 - L4/581
Outside Lab:

Client: Enviconment Address: 1000-4 Or Placentia, C	nt: Enriconmental Audit press: 1000-4 Ortega Way City: Placentia, CA. 92610 phone: 114-632-8521 Ext 22							Collections Collec	tor: _ Proje	Ch 1176	eri: 151 0Bu	ta lo uke	પ્ર			F	Projec	t Con	tact: «	Stei	age:_ Ve B] righ:	of <u>C</u>	2
Email: Shright Cenrauc	dit. com Phone	114-	632-	852/	Ext	224		eax: _								1	Tum a	round	l time:					
EDF: Yes No			Samplintact: Seal In Cold: [le Rece	ipt □ No Yes □] No	No 🗆 N/		ext				82	260	3		ТО	-15] TO-15] O2 N2			
Special Instructions: bmechame en val	udit.com							H 🗌 gasoline 📋 diesel	418.1 TRPH	21 for BTEX/MTBE	BTEX / Oxygenates	TPH gas	VOC's	DTSC/LARWQCB	Ketones	Full List	BTEX/MTBE	LCC (specify) 1, 1 DFA	Naphthalene 8260B	Methane	Fixed Gases CO2			Total # of containers
Sample Name	Field Point Name	Purge Vol	Time	Date	, T	/pe	ontainer Type	표	418	8021	ВТ	ТР	0	TO	Ķet	Ful	ВТ	CC	Na	Me	Fix			Įģ.
E2-5		P330cc	0905	2-23-0	9 Va	001 51	ass Irinae							X				X						1
E4-15 E4-5 E4-15		P350cc		1	7	1	1							X				X						1
F4-5		P330cc					7							X				X						1
E4-15		9350cc												X				X						1
DI-5		9330ac												X				X						11
DI-15		P350a												X				X						1
DQ-5		330a												X				X						1
D2-15		7350cc												X				X						1
D3-5		9330cc												X				X						İ
D3-5 D3-15		P.350cc	1142	V	\		V	\overline{k}						Χ				\overline{X}						1
Relinquished by: (Signature)	Relinquished by: (Signature) (company)				REN	h.lu	ture)	Zu S	A	`	H	KG D	Mi	bil	و	(compa	iny)		Date:	33-	09	Time:		
Refiriquished by: (Signature) (company) F				Rece	wed by: (S	Signature)) LISA	V'				ZX.()	7~11		(compa	iny)		Date:	1U	<u> </u>	Time:			
Relinquished by: (Signature) (company) Rec				Rece	eived by: (S	signature)									(compa	iny)		Date:			Time:			
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back. Sample disposed includes									7 7/									$\overline{}$						

MOBILE GEOCHEMISTRY

Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 · ph 760.804.9678 · fax 760.804.9159
3825 Industry Avenue, Lakewood, CA 90712 · ph 562.426.6991 · fax 562.426.6995

Date: 2-2	23-09
H&P Project #	EA 4 022309-LY/SB1
Outside Lab	

Client: Environme	ntal Audit						Colle	ctor:	Ch	eri	ta								F	page:	2	of	2
Address: 1000-A 01	tega Way City						Clien	t Proje	ect # _	157	16				(Projec	t Con	tact:	SH	evel	2 Brigh	#_	
Address: 1000-A DI Placentia, (Email: Sbrighteenvau	H. 92470			~~~			Loca	tion: _	117	00 8	Burk	te.	ſ γ .										
Email: Shrighteenvaud	dit.comPhone	e: <u>714</u>	-632	-8521	EXT	224	Fax:									Tum a	round	time:	:				
EDF: Yes No			Samp	le Receir	ot	"					8	260	В		ТО	-15	1			~			
Global ID:		_	Į	☐ Yes ☐ tact: ☐ Ye] N/A											l	5		Ž			
			1	☐ Yes ☐ Received o			à											TO-15					
			1				- -	' I												00			
Special Instructions: bm echame env	andit some						diese								1		BEA	89		1-1			
bm echame env	auarricorry						- 1	1	TBE	tes			В				3	8260B		202			ers
							gasoline		X	Jena			å				1						ltain
							oasc	TRPH	for BTEX/MTBE	ő			ARV		İ	186	ecif	lene	0	Gases			9
							-	F	Š	BTEX / Oxygenates	TPH gas	voc's	DTSC/LARWQCB	Ketones	Full List	BTEX/MTBE	LCC (specify)	Naphthalene	Methane	8 0		-	Total # of containers
Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Containe Type	E E	418.1	8021	BŢ	TP	8	TO	Ket	J.	BTI	ğ	e Z	¥	Fixed		O states	Tot
A5-5		9330cc	1220	2-23-09	Vapor	Glass	e						X				メ		1				
A5-15		P350a	1222		1								X				X						1
A4-15 A4-45Dup A4-5 B4-5	1350ec	P3365	1245				\perp	L					X				X						1
A495Dup	A45 Dup P400cc	9360a	1247										X				X						
A4-5	<u>'</u>	P330ec	1320										X				X						
B4-5		P330cc	1350										X				X						
B4-15		P350a	1355	V	V	4							X				X						
							\perp																
																				\Box			
Polinguished by: /Sinnature	<u> </u>		(company)		PAL.	N. (Signatura	10		Ĺ		775				(0000	DV)		Date:			Time:		
Relinquighed by: (Signature)	<u> </u>		(company)	<i></i>	MA	enta (/ M	A)	_/4	g P	M	obi	le	(compa	io		2-	23-	09			
Relinquished by: (Signature)			(company)		Received	y: (Signature									(compa	iny)		Date:			Time:		
Relinquished by: (Signature)		W	(company)		Received t	y: (Signature	:)								(compa	iny)		Date:			Time		
*Signature constitutes authorization	to proceed with analysis and accept	ance of cor	ndition on b	ack.	Samole dis	sposal instruc	tion.		7 Disc	nosal @	\$2.00	each		R	eturn to	client		$\overline{\Box}$	Pickun				

	MOBILE GEOCHEMI	STRY		C	Chai	n o	f Cı	ısto	od	y F	₹e	CO		r.0	45/	1.4-		Date:	00	2/	24	109	<u> </u>	24	-
	HQI	2470 Impala Dr.,3825 Industry Av										5.699		EBO			,	H&P i Outsid	Proj e c de Lat	1# <u>k</u> 3:	AU	U2.	<u> 230</u>	29-5	13/
	Client: ENVINONA Address: (ODD - A OT Placentia Email: Soryhtaen	tega Way	1214)	1,3)	१६३		224	c	Collections of the Collections o	etor: _ Proje on: _	Da!	11e 15 20	1 /	7			Sa	Projec 11/a	ct Con	tact:	51			rig	7
	EDF: Yes No	Phon	ie: CZLIZ		e Recei				ax: _		1	T		260)-15	around	ume	T	$\overline{\Box}$	T		T
	Global ID:		-	Intact: Seal Int	☐ Yes ☐ tact: ☐ Ye ☐ Yes ☐ eceived	No es □ No No			ext											TO-15		O2 🗆 N2			
	Special Instructions:								gasoline diesel	H	8021 for BTEX/MTBE	BTEX / Oxygenates			DTSC/LARWQCB			TBE	(specify) 1, 1-5FA	ene 🗆 8260B 🗆		Gases □ CO2 □			
	Sample Name	Notes Field Point Name	(Acc) Purge Voi	Time	Date	Samp	T)	tainer /pe	TPH	418.1 TRPH	8021 for	BTEX/O	TPH gas	voc's	DTSC/LA	Ketones	Full List	BTEX/MTBE	LCC (spe	Naphthalene	Methane	Fixed Ga			
01	C4-5		336	1.43	12/24/	9 Vapo	r byx	inge			_				X			-	X						4
2	B6-15 B6-5	4	360	7.50		-	+-	ļ <u>_</u>							+	-		ļ <u>-</u>	+				_	_	+
3	<u> </u>		220	<u>ナ・フみ</u> ス・25		+-+	-	-					-		+			ļ	$oxed{+}$	-	 	 	+		+
	B5 - 15 B5 - 5		360			+	-								+				H						+
16	(3-15		360	8,50				1	<u> </u>			 								-	-		\perp		+
07	(3-5			8.54																					+
05 06 07 05 09	B3-15		360	9:22																					
94	B3-5		330	4:24																					
10	C2-15 Relinquished by: (Signature)		360	10-06 company)	V	Receive	d by: (Sign	nature la		-1		Λ./I			V		(comp	anvil	V	Date			Time	e:	
	Relinguished by (Signature)	~~		EA company)			d by: (Sign	Sa	MU	U'_{-}		Ch.	MM	y_			H 7	, Y	~~~~~~~~~	(ki)	/24	109	Time		
-	Relinquished by: (Signature)	~		company)			d by: (Sign				,						(comp			Date:			Time		-
l	*Signature constitutes authorization t	o proceed with analysis and accep	otance of cond	dition on be	ack.	Sample	disposal in	struction	1.		Dis	posal @	\$2.00	each			Return t	a client	,l		Pickup	,			

MOBILE GEOCHEMISTRY

Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Out

Date: B2	/24	/09	
H&P Project #	EAUO	22309-58	1/24

Outside Lab:

		Intact: Seal In Cold: [] Yes □]No ′es □ No [□ N/A				ŀ		821	30B		110	-15	į .	1				- 1	
			Received	on Site)			gasoline 🗌 diesel 🔲 ext	Н	BTEX/MTBE	xygenates		RWOCB			rBE	acify) <u>1, (- DFA</u>	ene 🗌 8260B 🗍 TO-15		ses CO2 CO2 N2			
No tes Field Point Name	(CC) Purge Vol 330	Time	Date	Sample Type	Conta	pe	ТРН	418.1 TF	8021 for	BTEX / C	86	X DISCAL	Ketones	Full List	BTEX/M	X LCC (sp	Naphtha	Methane	Fixed Ge			
	360	10:41			7	171														1	1	_
	330	10:43	1	++	-						+	$\dashv I$	+							+		_
		11:12	-								+	+	+-	+-					\vdash		+	
		11.51		+	+ 1			_	$\neg \uparrow$		+	11	+-	+						1		
	330	11:53									\top											_
	380	1/:54	V	V	V	,						\downarrow				V						_
		company)		Received	by: (Signa	ature)		1			1			(compa	any)		Date:			Time:		-
_	No 183 Field Point Name	330 360 330 360 330 360 330 380	330 10:08 360 10:41 330 11:15 340 11:15 330 11:51 330 11:53 380 11:54	330 10:08 DAYS 360 10:41 330 11:15 330 11:51 330 11:53 380 11:54	330 10:08 DAVID Vapor 360 10:41 330 11:15 330 11:51 330 11:53 380 11:54	330 10:08 Date Type Ty 330 10:08 DAY69 Vapor Syr 360 10:41 330 11:15 330 11:51 330 11:53 380 11:54	330 10:08 DAYEN Vapor Syringe 360 10:41 330 11:15 330 11:51 330 11:53 380 11:54	330 10:08 Date Type Type 330 10:08 DAYON Vapor 3yr ingress 330 10:41 330 11:15 330 11:51 330 11:53 380 11:54 Value	No ft3	CC Field Point Name Purge Time Date Sample Container Type Typ	No ft3	Notes	CCC Purge Time Date Type Container Type Ty	CCC	CCC Time Date Sample Container Type T	CCC Time Date Type T	CCC Time Date Sample Container Type T	CCC Time Date Type T	No +73	CCC Purge Time Date Sample Container Type	CC CC Container Container Type Container Type Type Container Type Container Type Container Type Container Type Container Type Container	CC Cot



02 March 2009

Mr Steve Bright **Environmental Audit** 1000-A Ortega Way Piacentia, CA 92670 RE: EAU022309-SB1/L4

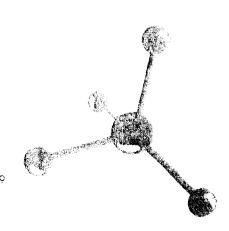
Enclosed are the results of analyses for samples received by the laboratory on 2/23/2009 -2/24/2009. If you have any questions concerning this report, please teet free to contact me

Sincerely.

Janis Villarreal

Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845.



Mobile Geochemistry Inc.

Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4
Project Number: 1576 / 11700 Burke St.

Project Manager; Mr. Steve Bright

Reported: 02-Mar-09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E1-5, 1PV, P110cc	E902069-01	Vapor	23-Feb-09	23-Feb-09
E1-5, 3PV, P330cc	E902069-02	Vapor	23-Feb-09	23-Feb-09
E1-5, 7PV, P770cc	E902069-03	Vapor	23-Feb-09	23-Feb-09
E1-15, P360cc	E902069-04	Vapor	23-Feb-09	23-Feb-09
E3-15, P360cc	E902069-05	Vapor	23-Feb-09	23-Feb-09
E3-5, P330cc	E902069-06	Vapor	23-Feb-09	23-Feb-09
E5-15, P360cc	E902069-07	Vapor	23-Feb-09	23-Feb-09
E5-5, P330cc	E902069-08	Vapor	23-Feb-09	23-Feb-09
D6-15, P360cc	E902069-09	Vapor	23-Feb-09	23-Feb-09
D6-5, P330cc	E902069-10	Vapor	23-Feb-09	23-Feb-09
D5-15, P360cc	E902069-11	Vapor	23-Feb-09	23-Feb-09
D5-5, P330cc	E902069-12	Vapor	23-Feb-09	23-Feb-09
D4-15, P360cc	E902069-13	Vapor	23-Feb-09	23-Feb-09
D4-5, P330cc	E902069-14	Vapor	23-Feb-09	23-Feb-09
C6-15, P360cc	E902069-15	Vapor	23-Feb-09	23-Feb-09
C6-5, P330cc	E902069-16	Vapor	23-Feb-09	23-Feb-09
C5-15, P360cc	E902069-17	Vapor	23-Feb-09	23-Feb-09
C5-5, P330cc	E902069-18	Vapor	23-Feb-09	23-Feb-09
C4-15, P360cc	E902069-19	Vapor	23-Feb-09	23-Feb-09
C4-15 Dup, P410cc	E902069-20	Vapor	23-Feb-09	23-Feb-09
E2-5, P330ec	E902070-01	Vapor	23-Feb-09	23-Feb-09
E2-15, P350cc	E902070-02	Vapor	23-Feb-09	23-Feb-09
E4-5, P330cc	E902070-03	Vapor	23-Feb-09	23-Feb-09
E4-15, P350ec	E902070-04	Vapor	23-Feb-09	23-Feb-0
D1-5, P330cc	E902070-05	Vapor	23-Feb-09	23-Feb-09
D1-15, P350cc	E902070-06	Vapor	23-Feb-09	23-Feb-0
D2-5, P330cc	E902070-07	Vapor	23-Feb-09	23-Feb-09
D2-15, P350cc	E902070-08	Vapor	23-Feb-09	23-Feb-09



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
D3-5, P330cc	E902070-09	Vapor	23-Feb-09	23-Feb-09
D3-15, P350cc	E902070-10	Vapor	23-Feb-09	23-Feb-09
A5-5, P330cc	E902070-11	Vapor	23-Feb-09	23-Feb-09
A5-15, P350cc	E902070-12	Vapor	23-Feb-09	23-Feb-09
A4-15, P350cc	E902070-13	Vapor	23-Feb-09	23-Feb-09
A4-15 Dup, P400cc	E902070-14	Vapor	23-Feb-09	23-Feb-09
A4-5, P330cc	E902070-15	Vapor	23-Feb-09	23-Feb-09
B4-5, P330cc	E902070-16	Vapor	23-Feb-09	23-Feb-09
B4-15, P350cc	E902070-17	Vapor	23-Feb-09	23-Feb-09
C4-5, P330cc	E902073-01	Vapor	24-Feb-09	24-Feb-09
B6-15, P360cc	E902073-02	Vapor	24-Feb-09	24-Feb-09
B6-5, P330cc	E902073-03	Vapor	24-Feb-09	24-Feb-09
B5-15, P360cc	E902073-04	Vapor	24-Feb-09	24-Feb-09
B5-5, P330cc	E902073-05	Vapor	24-Feb-09	24-Feb-09
C3-15, P360cc	E902073-06	Vapor	24-Feb-09	24-Feb-09
C3-5, P330cc	E902073-07	Vapor	24-Feb-09	24-Feb-09
B3-15, P360cc	E902073-08	Vapor	24-Feb-09	24-Feb-09
B3-5, P330cc	E902073-09	Vapor	24-Feb-09	24-Feb-09
C2-15, P360cc	E902073-10	Vapor	24-Feb-09	24-Feb-09
C2-5, P330cc	E902073-11	Vapor	24-Feb-09	24-Feb-09
B2-15, P360cc	E902073-12	Vapor	24-Feb-09	24-Feb-09
B2-5, P330ec	E902073-13	Vapor	24-Feb-09	24-Feb-09
C1-15, P360cc	E902073-14	Vapor	24-Feb-09	24-Feb-09
C1-5, P330cc	E902073-15	Vapor	24-Feb-09	24-Feb-09
B1-15, P360cc	E902073-16	Vapor	24-Feb-09	24-Feb-09
B1-5, P330cc	E902073-17	Vapor	24-Feb-09	24-Feb-09
B1-5 Dup, P380cc	E902073-18	Vapor	24-Feb-09	24-Feb-09



Environmental Audit 1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager; Mr. Steve Bright

Reported: 02-Mar-09



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Project Manager: Mr. Steve Bright Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E1-5, 1PV, P110cc (E902069-01) Vapor	Sampled: 23-Feb-09	Received: 23-	Feb-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50		**	"	**	**	*	
Vinyl chloride	ND	0.10	**	"	**	**	**	n	
Chloroethane	ND	0.50	"	"	"	**	**	u u	
Trichlorofluoromethane	ND	0.50	**	"	"	"	**	"	
1,1-Dichloroethene	ND	0.50	"	"	"	н	**	"	
Methylene chloride	ND	0.50	"	n	**	"	**	"	
Freon 113	ND	0.50	"	"	*	4			
trans-1,2-Dichloroethene	ND	0.50	Ħ	"	**	*	"	•	
1,1-Dichloroethane	ND	0.50	*	"	н	**	"	et .	
cis-1,2-Dichloroethene	ND	0.50	11	4	Ħ	n		•	
Chloroform	ND	0.10	**	**	"	**	n	**	
1,1,1-Trichloroethane	ND	0.50	**	"	**	"	n	**	
Carbon tetrachloride	ND	0.10	"	**	u	"	"	**	
1,2-Dichloroethane	ND	0.10	"	**	н		**	**	
Benzene	ND	0.10	"	,,	н	"	**	"	
Trichloroethene	ND	0.10	**	*	н	"	35	n	
Toluene	ND	1.0	11	#	11	"	**	**	
1,1,2-Trichloroethane	ND	0.50	"	"	11	**	**	*	
Tetrachloroethene	0.15	0.10	11	"	11	"	**	**	
Ethylbenzene	ND	0.50	н	"	н	*	"	#	
1,1,1,2-Tetrachloroethane	ND	0.50	11	**	**	*	**	"	
m,p-Xylene	ND	0.50	11	"	11	"	"	,,	
o-Xylene	ND	0.50	11	,	ti .	"	"	,,	
1,1,2,2-Tetrachloroethane	ND	0.50	*	"	u	*	•	**	
		10 10 10 10 10 10 10 10 10 10 10 10 10 1					*****************		
Surrogate: Dibromofluoromethane		100 %		75-125	*	**	"	"	
Surrogate: 1,2-Dichloroethane-d4		87.6 %		75-125	*	"	"	"	
Surrogate: Toluene-d8		91.9 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		<i>75-125</i>	"	"	"	#	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Diluti Facto		tch	Prepared	Analyzed	Method	Notes
E1-5, 3PV, P330cc (E902069-02) Vapor	Sampled: 23-Feb-09	Received: 23-	Feb-09							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.03	EB9	2301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	**	,			n	"	
Vinyl chloride	ND	0.10	"	**	,	*	17	*	**	
Chloroethane	NĐ	0.50	**	"	'	н	**	н .	**	
Trichlorofluoromethane	ND	0.50	"	**	,	"	"	**	"	
1,1-Dichloroethene	ND	0.50	п	"	,	11	**	0	u	
Methylene chloride	ND	0.50	**	"			H	4	**	
Freon 113	ND	0.50	**	"	,	11	"	**	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	,	н	*	n	**	
1,1-Dichloroethane	ND	0.50	,	**		Ħ	Ħ	n	**	
cis-1,2-Dichloroethene	ND	0.50	#	"		19	H	"	"	
Chloroform	ND	0.10	ņ	"			**	n	"	
1,1,1-Trichloroethane	ND	0.50	11	"		*			ч	
Carbon tetrachloride	ND	0.10	"	. "		11	*	**	**	
1,2-Dichloroethane	ND	0.10	"	**		н	"	"	**	
Benzene	ND	0.10	"			n		"	"	
Trichloroethene	ND	0.10	*	•		19	*	*	**	
Toluene	ND	1.0	"	,,		*	•	*	*	
1,1,2-Trichloroethane	ND	0.50	tf	n		*	•		*	
Tetrachloroethene	0.16	0.10	**	,,		u	•	"	**	
Ethylbenzene	ND	0.50	**	"		19	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	**	"		"	*	**	"	
m,p-Xylene	ND	0.50	**	н		**	"	"	**	
o-Xylene	ND	0.50	"	"		**	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"		"	*	**	11	N 44 total manner or pass or series
Surrogate: Dibromofluoromethane		99.0 %		75-125		,,	,	"	,,	
Surrogate: 1,2-Dichloroethane-d4		86.6 %		75-125 75-125		-	,,	,,	,,	
Surrogate: Toluene-d8		92.1 %		75-125 75-125		,,	"	"	,,	
Surrogate: 1-0tuene-do Surrogate: 4-Bromofluorobenzene		95.6%		75-125 75-125		,,	,,	"	,,	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E1-5, 7PV, P770cc (E902069-03) Vapor	Sampled: 23-Feb-09	Received: 23-	Feb-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	n	"	Ħ	*	**	**	
Vinyl chloride	ND	0.10	"	ħ	**	"		"	
Chloroethane	ND	0.50	"	**	**	**	"	"	
Trichlorofluoromethane	ND	0.50		**	11	11	n	"	
1,1-Dichloroethene	ND	0.50	**	"	11	11	n	"	
Methylene chloride	ND	0.50	н	•	**	¥	n	"	
Freon 113	ND	0.50	,,,	**	"		•	H	
trans-1,2-Dichloroethene	ND	0.50	19	**		n	•	*	
1,1-Dichloroethane	ND	0.50	**	**	**	n	•	**	
cis-1,2-Dichloroethene	ND	0.50		"	**	**	"	*	
Chloroform	ND	0.10	**	"	11	**	*	**	
1,1,1-Trichloroethane	ND	0.50	11	'n	**	*	•	*1	
Carbon tetrachloride	ND	0.10	**	"	**	н	**	**	
1,2-Dichloroethane	ND	0.10	,,	"	"	*	**	**	
Benzene	ND	0.10	"		"	•	n	"	
Trichloroethene	ND	0.10	**	"	"	"	19	**	
Toluene	ND	1.0	"	*	**			#	
1,1,2-Trichloroethane	ND	0.50		"	"	n	**	11	
Tetrachloroethene	0.14	0.10	,,	,	**	**	"	"	
Ethylbenzene	ND	0.50	,,	"	11		*	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	**	н		**	"	
m,p-Xylene	ND	0.50	**	**	n	n	"	**	
o-Xylene	ND	0.50	**		11	*		n	
1,1,2,2-Tetrachloroethane	ND	0.50	н	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				II.	
Surrogate: Dibromofluoromethane		104 %	;	75-125	"	,,	"	,,	
Surrogate: 1,2-Dichloroethane-d4		86.4 %	;	75-125	tr	**	"	"	
Surrogate: Toluene-d8		95.3 %		75-125	"	,	"	n	
Surrogate: 4-Bromofluorobenzene		98.3 %		75-125	"	"	**	"	

Mobile Geochemistry Inc.

Environmental Audit

1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E1-15, P360cc (E902069-04) Vapor	Sampled: 23-Feb-09	Received: 23-Feb-	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND		•	"	**	**	n	**	
Vinyl chloride	ND	0.10	я	*	#	**	"	**	
Chloroethane	ND	0.50	h	*	н	u	n	*1	
Trichlorofluoromethane	ND	0.50	•	**	*	*	"	41	
1,1-Dichloroethene	ND	0.50	n	41	**	*	"	"	
Methylene chloride	ND	0.50	*	"	**	"	*	**	
Freon 113	ND	0.50	*	*	*	"	"	"	
trans-1,2-Dichloroethene	ND		*	*	*	71	•	44	
1,1-Dichloroethane	ND	0.50		"	n	•	"	19	
cis-1,2-Dichloroethene	ND		19	**	"	**	•	**	
Chloroform	ND		14	**	26		**	•	
1,1,1-Trichloroethane	ND		"	"	н	**	"	11	
Carbon tetrachloride	ND		,,	"	"	"	"	**	
1,2-Dichloroethane	ND		**	"	"	**	**	ħ	
Benzene	0.11	0.10	**	**	19	*		"	
Trichloroethene	ND		**	**	*	n	"	*	
Toluene	ND			**	19	*	**	n	
1,1,2-Trichloroethane	ND			"	11	*	"	**	
Tetrachloroethene	6.8		17	**	11	n	**	•	
Ethylbenzene	ND		,,	"	n	"	,,	**	
1,1,2-Tetrachloroethane	ND		17	"	**	n	"	м	
m,p-Xylene	ND		11	,,	н	n	n	•	
o-Xylene	ND		11	и.	n	"	"	*	
1,1,2,2-Tetrachloroethane	ND		H	"	#	#		#	
Surrogate: Dibromofluoromethane		106 %	7	75-125	,,	,,	,,	#	
Surrogate: 1,2-Dichloroethane-d4		92.1 %		'5-125	,,	n	"	"	
Surrogate: Toluene-d8		97.8 %		5-125 '5-125	"	*	*	,,	
Surrogate: 4-Bromofluorobenzene		110%		'5-125	,	"	,	"	
Dan Oguic. Thi omorraoi overmene		110 /0	,						



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E3-15, P360cc (E902069-05) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50		*1	*1	"		**	
Vinyl chloride	ND	0.10	n		"	*	**	"	
Chloroethane	NE	0.50	**	n	n	**	**	•	
Trichlorofluoromethane	NE	0.50			,,	11	н	H	
1,1-Dichloroethene	ND		*1		"	"	**	tt	
Methylene chloride	NE	0.50	•	**	,,	**	**	н	
Freon 113	NC		11	n	*	•	•	**	
trans-1,2-Dichloroethene	NC		"	n	*	**	**	"	
1.1-Dichloroethane	NE			**	#1		**	**	
cis-1,2-Dichloroethene	NC		*	"	*	n	"	"	
Chloroform	NE		**	•	**	"			
1,1,1-Trichloroethane	NE		**		#	**		"	
Carbon tetrachloride	NE			"	11	"		"	
1,2-Dichloroethane	NE			"	"	**		**	
Benzene	NE		tr	,,	"	"	"	"	
Trichloroethene	NE		*	,,	"	,,	,,	,,	
Toluene	NE		*	p		**	,,	**	
1,1,2-Trichloroethane	NE					*	,,		
Tetrachloroethene	0.88			*	#		**	*	
Ethylbenzene	NE NE		**	44	**		,,	**	
1,1,1,2-Tetrachloroethane	NE		**	#	#			**	
m,p-Xylene	NE		,,		#	n		**	
o-Xylene	NE		ır	"	,,	*			
1,1,2,2-Tetrachloroethane	NE		u		u	,			
1,1,2,2-1 ettachioroctione	INL	0.30							
Surrogate: Dibromofluoromethane		100 %		75-125		**	"	"	
Surrogate: 1,2-Dichloroethane-d4		89.9 %		75-125	"	*	,,	n	
Surrogate: Toluene-d8		97.0 %		75-125	*	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6%		75-125	"	"	*	"	

Mobile Geochemistry Inc.

Environmental Audit

1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported:

Project Manager: Mr. Steve Bright

02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Resu	···	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E3-5, P330cc (E902069-06) Vapor	Sampled: 23-Feb-09	Received: 23-Feb-	09						
1,1-Difluoroethane (LCC)	N	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	N	0.50		Ħ	"	17	**	*	
Vinyl chloride	N	0.10	**	**	Ħ	**	n	**	
Chloroethane	N	0.50	"	n	#	11	**	"	
Trichlorofluoromethane	N	0.50		tr.	*	**	e	"	
1,1-Dichloroethene	N	0.50	*	**	"	H	Ħ	**	
Methylene chloride	N	0.50	"	"	"	"	**	"	
Freon 113	N	0.50	"	"	#	**	"	*	
trans-1,2-Dichloroethene	N	0.50	,,	**	н	n	•	"	
1,1-Dichloroethane	NI	0.50	,,	41	Ħ	*		•	
cis-1,2-Dichloroethene	NI	0.50	,,	"	,,	u	19	n	
Chloroform	NI	0.10		44	**	n			
1,1,1-Trichloroethane	NI	0.50	••	**	"		#	**	
Carbon tetrachloride	NI			"	*	*	"		
1,2-Dichloroethane	NI		"	•	"	*			
Benzene	NI		**	•	*	"	† 3	"	
Trichloroethene	Ni		**	**	*	•	•		
Toluene	Ni		"	н	**	•			
1,1,2-Trichloroethane	N		**	**	•	•	**	*	
Tetrachloroethene	N		**					*	
Ethylbenzene	Ni			"		*		*	
1,1,1,2-T etrachloroethane	N		"	,,	"	•	"	•	
m,p-Xylene	N	D 0.50	**	*	"		"	и.	
o-Xylene	N		Ħ	n	*	*	**	**	
1,1,2,2-Tetrachloroethane	N		*	n	**	"	**		
4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	***************************************								
Surrogate: Dibromofluoromethane		104 %		75-125	,,	"	n	"	
Surrogate: 1,2-Dichloroethane-d4		96.1 %		75-125	,,	"	"	"	
Surrogate: Toluene-d8		96.6 %		75-125	"	,,	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %		75-125	"	"	"	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result		Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E5-15, P360cc (E902069-07) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	"	**	**	n	"	
Vinyl chloride	ND	0.10	**	••	"	*	**	Ħ	
Chloroethane	ND	0.50	**	**	**	**	н	**	
Trichlorofluoromethane	ND	0.50	"	"	**	**	н	**	
1,1-Dichloroethene	ND	0.50	**	**	"	**	н	"	
Methylene chloride	ND	0.50	"	*	19	"	H	**	
Freon 113	ND	0.50	**		18	*		**	
trans-1,2-Dichloroethene	ND	0.50	"	**	11	**	**	"	
1,1-Dichloroethane	ND	0.50	ft.	**	11	**	*9	"	
cis-1,2-Dichloroethene	ND	0.50	†1	"	11	"	"	•	
Chloroform	0.13	0.10	**	"	**	"	19	v	
1,1,1-Trichloroethane	ND	0.50	"	"	**	"	n	•	
Carbon tetrachloride	NE	0.10		**	"	Ħ	n	tt	
1,2-Dichloroethane	NE	0.10		*	**	H	"	*	
Benzene	0.10	0.10	11	"	11	n		P	
Trichloroethene	0.45	0.10	11	"	**	**		*	
Toluene	NE	1.0	Ħ	,	#	•	"		
1,1,2-Trichloroethane	NE	0.50	и	"	Ħ	•	,,	"	
Tetrachloroethene	0.80			"	**	"		"	
Ethylbenzene	NE			"	"	**	,,	"	
1,1,1,2-Tetrachloroethane	NE	0.50	**	*	11	*	**	"	
m,p-Xylene	NE	0.50	.,	*	11	н	n	"	
o-Xylene	NE	0.50	**	,,	11	•	*	**	
1,1,2,2-Tetrachloroethane	NE		H	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11	"	"	"	
Surrogate: Dibromofluoromethane		97.3 %		75-125	*	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		89.3 %		75-125	"	"	"	,,	
Surrogate: Toluene-d8		93.9 %		75-125	**	"	**	"	
Surrogate: 4-Bromofluorobenzene		100 %		75-125	"	"	"	"	



Project: EAU022309-SB1/L4

1000-A Ortega Way Placentia, CA 92670 Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
				Factor	Daten	Fiepareo	Analyzeu	Metriod	Notes
E5-5, P330cc (E902069-08) Vapor	Sampled: 23-Feb-09 Reco	eived: 23-Feb-(09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	*	**	11	**	e		
Vinyl chloride	ND	0.10	,	"	*	"	*1	**	
Chloroethane	ND	0.50	•	**	11	11	**	"	
Trichlorofluoromethane	ND	0.50	"		*	"	н	"	
1,1-Dichloroethene	ND	0.50	n	u	"	11	"	"	
Methylene chloride	ND	0.50	"	**	"	и	**		
Freon 113	ND	0.50	"	"	**	**	•	4	
trans-1,2-Dichloroethene	ND	0.50	"	•	"	**	"	*	
1,1-Dichloroethane	ND	0.50	*	*	"	*	•	4	
cis-1,2-Dichloroethene	ND	0.50	"	•	"	n	•	•	
Chloroform	ND	0.10	"	**	**	•	•	N	
1,1,1-Trichloroethane	ND	0.50	"	**	"	*	**	*	
Carbon tetrachloride	ND	0.10	"	**	"	11	**	"	
1,2-Dichloroethane	ND	0.10	"	11	,,	*	*	**	
Benzene	0.13	0.10	н		**	•	**	"	
Trichloroethene	ND	0.10	w	*	"	n		"	
Toluene	ND	1.0	11	*	**	•	*	•	
1,1,2-Trichloroethane	ND	0.50	**		*				
Tetrachloroethene	ND	0.10	"	*	"	11	P	*	
Ethylbenzene	ND	0.50	u		**	"	**	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	**	"	n		"	
m,p-Xylene	ND	0.50	"		"	•	*	*	
o-Xylene	ND	0.50	¥		u	**	,,		
1,1,2,2-Tetrachloroethane	ND	0.50	H	ļi			#	*	
Surrogate: Dibromofluoromethane		112 %		75-125	,,	"	,,	n	
Surrogate: 1,2-Dichloroethane-d4		101 %		75-125	"	•	•	"	
Surrogate: Toluene-d8		101 %		75-125	*	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %		75-125	**	"	**	*	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/LA

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilutio Factor		Prepared	Analyzed	Method	Notes
D6-15, P360cc (E902069-09) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09					····	
1,1-Difluoroethane (LCC)	ND		ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND		"	**	"	**	**	**	
Vinyl chloride	ND				. "	*	n	**	
Chloroethane	ND		**	•	"	н	n	**	
Trichlorofluoromethane	ND		44	"		"	n	n	
1,1-Dichloroethene	ND		**	•	п	**	11	n	
Methylene chloride	ND		**		11	19	11	н	
Freon 113	ND		**	**	*	4	19	u	
trans-1,2-Dichloroethene	ND		**	"	**	"		•	
1,1-Dichloroethane	ND	0.50		**	11	н	"	**	
cis-1.2-Dichloroethene	ND	0.50	"	**	**	*		**	
Chloroform	ND	0.10	14	"	н	н	**	h	
1,1,1-Trichloroethane	ND	0.50	н	**	*	n	n	н	
Carbon tetrachloride	ND	0.10	н	n	н	"	н	n	
1,2-Dichloroethane	NE	0.10	**	**	н	Ħ	u	**	
Benzene	0.12	0.10	15	"	н	*1	"	n	
Trichloroethene	NE	0.10	**	и	19	n		п	
Toluene	NE	1.0	27	"	н	"		"	
1,1,2-Trichloroethane	NE	0.50	"	"	"	"	**	**	
Tetrachloroethene	0.50	0.10	19	n	"	"	**	*	
Ethylbenzene	NE	0.50		,,	n	"	**	"	
1,1,2-Tetrachloroethane	NE	0.50	H	"	"	•	n	0	
m,p-Xylene	NE	0.50	"	ri .	m	*	H	**	
o-Xylene	NE	0.50	н	**	Ħ	**	**	p	
1,1,2,2-Tetrachloroethane	NE	0.50	*		*	n	*	14	
Surrogate: Dibromofluoromethane		102 %		75-125	"	,,	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		90.2 %		75-125	"	"	"	*	
Surrogate: Toluene-d8		92.6 %		75-125	"	"	"	,,	
Surrogate: 4-Bromofluorobenzene		99.6 %		75-125	"	"	"	r	



Environmental Audit 1000-A Ortega Way

Project Nu

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D6-5, P330cc (E902069-10) Vapor	Sampled: 23-Feb-09 Reco	ived: 23-Feb-	09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	п	•	11	**	*	**	
Vinyl chloride	ND	0.10	**	*	*	"	n	**	
Chloroethane	ND	0.50	"	**	"	**	"	u	
Trichlorofluoromethane	ND	0.50	н	"	,,	•	"	**	
1,1-Dichloroethene	ND	0.50	R	**	"	**	"	w	
Methylene chloride	ND	0.50	"	"	**	"	*	**	
Freon 113	ND	0.50	r	"	11	'n	"	*	
trans-1,2-Dichloroethene	ND	0.50	p	**	*	19	"		
1,1-Dichloroethane	ND	0.50	"	"		**	n	4	
cis-1,2-Dichloroethene	ND	0.50	,,	10	#	u	,,	0	
Chloroform	ND	0.10	Ħ	**	**	н	,,	**	
1,1,1-Trichloroethane	ND	0.50	**	*	**	*	n	**	
Carbon tetrachloride	ND	0.10	*	4	**	*	"	**	
1,2-Dichloroethane	ND	0.10	11	•	**	*	"	*1	
Benzene	0.14	0.10	17		11	•		**	
Trichloroethene	ND	0.10	**	**	"	"	,	#	
Toluene	ND	1.0	,,	,	19	n	н		
1,1,2-Trichloroethane	ND	0.50			11	**		#	
Tetrachloroethene	ND	0.10	"	*	#			"	
Ethylbenzene	ND	0.50	"	•		*	**	n	
1,1,1,2-Tetrachloroethane	ND	0.50	**	"	Ħ	**	"	"	
m,p-Xylene	ND	0.50	"	**	11	**	n	,,	
o-Xylene	ND	0.50	if	н	n	u	**	1*	
1,1,2,2-Tetrachloroethane	ND	0.50		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	h	*	#	p p	
Surrogate: Dibromofluoromethane		106 %		75-125	,,	,,	,	,,	
Surrogate: 1,2-Dichloroethane-d4		89.9 %		75-125	"	*	"	"	
Surrogate: Toluene-d8		92.2 %		75-125	n	#	*	,,	
Surrogate: 4-Bromofluorobenzene		96.0 %		75-125	"	,,	"	•	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D5-15, P360cc (E902069-11) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	n	н	"	"		
Vinyl chloride	ND	0.10	"	H	**	"	Ħ	n	
Chloroethane	ND	0.50	"	11	"	"	н	"	
Trichlorofluoromethane	ND	0.50	"	n	"	11	n	"	
1,1-Dichloroethene	ND	0.50	"	n	**	**	n	11	
Methylene chloride	ND	0.50	*	ıı	"	"	н	n	
Freon 113	ND	0.50	"	**	**	"	11	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	**	n	13	"	
1,1-Dichloroethane	ND	0.50	"		*	**	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	*	"		"	
Chloroform	ND	0.10	**	11	**	**	•	"	
1,1,1-Trichloroethane	ND	0.50	,	"	*	Ħ	"	**	
Carbon tetrachloride	0.17	0.10	**	4	*	H	•	**	
1,2-Dichloroethane	ND	0.10	*	fr	**	н	•	**	
Benzene	0.13	0.10	11	"	tt	Ħ	"	*	
Trichloroethene	0.67	0.10	**	n	**	*	*	"	
Toluene	NE	1.0	tr.	P	*	**	**	"	
1,1,2-Trichloroethane	NC	0.50	"	н	"	*	**		
Tetrachloroethene	4.0	0.10	**	н	*		**	#	
Ethylbenzene	NC	0.50	**	н	n	4		•	
1,1,1,2-Tetrachloroethane	NE	0.50	**	п	n		**	**	
m,p-Xylene	NE	0.50	*	#	"	"	n	"	
o-Xylene	NE	0.50	Ħ	14	0		**	1*	
1,1,2,2-Tetrachloroethane	NC	0.50	н	п		0	**		
Surrogate: Dibromofluoromethane		101 %		75-125	,,	"	μ	"	
Surrogate: 1,2-Dichloroethane-d4		94.0 %		75-125	"	,,	**	"	
Surrogate: Toluene-d8		93.3 %		75-125	"	,,	**	"	
Surrogate: 4-Bromofluorobenzene		99.8 %		75-125	н	"	**	"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Sampled: 23-Feb-09 Reco	eived: 23-Feb-	09						
ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
ND	0.50		*	*	**	**	4	
ND	0.10	**	*	*	**	Ħ	n	
ND	0.50	#	**	"	v		**	
ND	0.50	,	n	н	n	lt .	**	
ND	0.50	*	**	**	W	ti		
ND	0.50	"	11		"	**	**	
ND	0.50	,,	u	**	11	"	**	
ND	0.50	"	"	"	н		**	
	0.50	*	**	,,	*	*	te	
ND		,	**		n	"		
ND	0.10	*	n	,,	11	*	v	
ND	0.50		*1	*	11	n	**	
ND	0.10	**	**	**	"	"	"	
ND	0.10	,	н	#	н	n	**	
0.15	0.10	"	*	н	n	**		
ND	0.10	*		**	"	H		
ND	1.0	"	*	**	n	n	*	
ND	0.50	**	"	**				
ND	0.10	"	**	**	N	10	4	
ND	0.50	"	*	11	n	,,	*	
ND	0.50	**	н	"	"	*		
ND			"	"	**	,	**	
		*	11	n	"		"	
ND	0.50	**		n	*	Ħ	H	
	08 3 %	7	5-125	,	,,	,	"	
				,,	,,	,,	"	
				-	,,		p	
				,	,	"	"	
	Sampled: 23-Feb-09 Reco	Result Limit	Result Limit Units	Result Limit Units Factor	Result	Result Limit Units Factor Batch Prepared	ND ND ND ND ND ND ND ND	ND



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D4-15, P360cc (E902069-13) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	"	11	**	n	87	
Vinyl chloride	ND	0.10	п	"	**	**	н	*	
Chloroethane	ND	0.50	**	"	"	lr .	*	14	
Trichlorofluoromethane	ND	0.50	,11	"	11	11	H	n	
1,1-Dichloroethene	ND	0.50	и	"	**	"	n	**	
Methylene chloride	ND	0.50	•	"	н	11	**	н	
Freon 113	ND	0.50	,,	"	н	H		n n	
trans-1,2-Dichloroethene	ND	0.50	"	"	н	Ħ	•	"	
1,1-Dichloroethane	ND	0.50	"	"	H	4	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	**	н	H		4	
Chloroform	ND	0.10	"	"	#	"	.,	41	
1,1,1-Trichloroethane	ND	0.50	"	u	**	n	*	Ħ	
Carbon tetrachloride	0.12	0.10	"	*1	н	"	**	н	
1,2-Dichloroethane	ND	0.10	"	tı	**	n	n	**	
Benzene	0.12	0.10	"	,	**	"		n	
Trichloroethene	3.1	0.10	"	"	**	"	*	n	
Toluene	ND	1.0	11	*	**			*	
1,1,2-Trichloroethane	ND	0.50	14	п	**	n	**		
Tetrachloroethene	17		u	**	**	•	**	**	
Ethylbenzene	ND	0.50	**	"	**		n	*	
1,1,2-Tetrachloroethane	ND		**	"	11	•	"	11	
m,p-Xylene	ND			"	11	"	"	**	
o-Xylene	ND	0.50	*	,,	"	"	"	*	
1,1,2,2-Tetrachloroethane	ND		н	#	n	*	"		
Surrogate: Dibromofluoromethane		104 %		75-125	n	*	,	"	
Surrogate: 1,2-Dichloroethane-d4		87.0 %		75-125	**	"	#	"	
Surrogate: Toluene-d8		91.8 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %		75-125	"	"	"	"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/LA

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

The Monte decirculary												
Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes			
D4-5, P330cc (E902069-14) Vapor	Sampled: 23-Feb-09 Rec	eived: 23-Feb-	09									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B				
Dichlorodifluoromethane	ND	0.50	۳	"	**	¥	**					
Vinyl chloride	ND	0.10	"	н		H		*				
Chloroethane	ND	0.50	*	"	**	"	**	ч				
Trichlorofluoromethane	ND	0.50	"	n	•	"	*	**				
1,1-Dichloroethene	ND	0.50	**	**	"		•	"				
Methylene chloride	ND	0.50		"	"	**	ŧı	"				
Freon 113	ND	0.50	**	**	*	"	•	"				
trans-1,2-Dichloroethene	ND	0.50	"	"	*	**	"	*				
1,1-Dichloroethane	ND	0.50	**	**	**	"		"				
cis-1,2-Dichloroethene	ND	0.50	,,	II	17	n	n	•				
Chloroform	ND	0.10	**	*	**	"	**	"				
1,1,1-Trichloroethane	ПИ	0.50		n	11	11	*	*				
Carbon tetrachloride	ND	0.10	**	"	*	"	n	**				
1,2-Dichloroethane	ПИ	0.10		**	"	**	н	**				
Benzene	ND	0.10	**	,,	*	**	"	"				
Trichloroethene	ND	0.10			*	"	**	**				
Toluene	ND	1.0	**	11	н	*	**	*				
1,1,2-Trichloroethane	ND	0.50		•	•		**					
Tetrachloroethene	0.36	0.10	"	"		**		•				
Ethylbenzene	ND	0.50	**	**	•	"	**					
1,1,2-Tetrachloroethane	ND	0.50	"	P	*	•	**	*				
m,p-Xylene	ND	0.50		*	"	•	*	"				
o-Xylene	ND	0.50	"	11	"	**	11	,				
1,1,2,2-Tetrachloroethane	ND	0.50	H	*	n		**	JI				
Surrogate: Dibromosluoromethane		105 %		75-125	,,	"	,,	"				
Surrogate: 1,2-Dichloroethane-d4		91.8%		75-125	,,	*	,,	,,				
Surrogate: Toluene-d8		95.6%		75-125 75-125	"	,,	,,	,,				
Surrogate: 4-Bromofluorobenzene		106%		75-125 75-125	•	,,	**	,,				
Surroguie. 4-Dromojiuorobenzene		100 70		13-123								



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C6-15, P360cc (E902069-15) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50		"	11	11	n	"	
Vinyl chloride	ND	0.10	"	"	11	**	n	"	
Chloroethane	ND	0.50	"	W	"	**	Ħ	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	11	u	
1,1-Dichloroethene	ND	0.50	,,		**	11	n	"	
Methylene chloride	ND	0.50		"	"	17	11	**	
Freon 113	ND	0.50	*	*	19	•		*	
trans-1,2-Dichloroethene	ND	0.50	**	"	19	**	•	•	
1,1-Dichloroethane	ND	0.50	"	**	*			"	
cis-1,2-Dichloroethene	ND	0.50	н	*1	"	*	•	*	
Chloroforin	ND	0.10	**	"	**	•	"	**	
1,1,1-Trichloroethane	ND	0.50	"	**	"	"	**	4	
Carbon tetrachloride	ND	0.10	**	n	н	"		n	
1,2-Dichloroethane	ND	0.10	,,	**	"	"	**	Ħ	
Benzene	ND	0.10	Ħ	*	н		40	*	
Trichloroethene	0.34	0.10	н	"	n		**	*	
Toluene	ND	1.0	**	"	н	"		*	
1,1,2-Trichloroethane	. ND	0.50	17		**			м	
Tetrachloroethene	2.2	0.10	"	"	**	"	"	н	
Ethylbenzene	ND	0.50	11	"	**	,	"	**	
1,1,1,2-Tetrachloroethane	ND	0.50	11	,	н	n	,,	**	
m,p-Xylene	ND	0.50	**	**	n	"	н	**	
o-Xylene	ND	0.50	**	"	t	*	*	,,	
1,1,2,2-Tetrachloroethane	ND	0.50	н	"	**	,	#1	,,	
Company Dibrayaftyanan them		107 %		75-125	,,	,,	p	"	
Surrogate: Dibromofluoromethane		91.3 %		75-125 75-125	,,	,,	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		94.2 %		75-125 75-125	"	,,	n	,,	
Surrogate: Toluene-d8		95.9 %		75-125 75-125	,,	,,	n	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Surrogate: 4-Bromofluorobenzene		93.9 %		3-123				-	



Project: EAU022309-SB1/LA

1000-A Ortega Way Placentia, CA 92670 Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C6-5, P330cc (E902069-16) Vapor	Sampled: 23-Feb-09	Received: 23-Feb-	09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	19	"	H		**	
Vinyl chloride	ND	0.10		**	"	"	*	**	
Chloroethane	ND	0.50	*	**	"	"	**	"	
Trichlorofluoromethane	ND	0.50	,	и	"	**	"	u	
1,1-Dichloroethene	ND	0.50	"	"	Ħ	H	*1	•	
Methylene chloride	ND	0.50	"	"	*	*	**	*	
Freon 113	ND	0.50	**	•	н	w	*	*	
trans-1,2-Dichloroethene	ND	0.50	**		*			"	
1,1-Dichloroethane	ND	0.50	n	n	**	"		"	
cis-1,2-Dichloroethene	ND	0.50	11	•	Ħ	n	ท	"	
Chloroform	ND	0.10	"	**	,,	"	n	*	
1,1,1-Trichloroethane	NE	0.50	"	**	**	11	,,	*1	
Carbon tetrachloride	NE	0.10	*	**	*	"	"	*	
1,2-Dichloroethane	NE	0.10	**	11	"	"	"	•	
Benzene	NE	0.10	"	*				**	
Trichloroethene	NE		**	**	"	n	n	•	
Toluene	NE	1.0	H	**	Ħ	*		. "	
1,1,2-Trichloroethane	NE	0.50	"	#4	0	*		**	
Tetrachloroethene	NE		17	•	**		**	•	
Ethylbenzene	NE	0.50	*		**	•			
1,1,2-Tetrachloroethane	NE	0.50	"	**	*		**	"	
m,p-Xylene	NE	0.50	"	*	•	n	**	"	
o-Xylene	NE		**	и		"	**	*	
1,1,2,2-Tetrachloroethane	NI		**	n	"	"		,,	
Surrogate: Dibromofluoromethane		99.5 %		75-125	,,	,,	p	,,	
		88.3 %		75-125 75-125	,	,,	,,	,,	
Surrogate: 1,2-Dichloroethane-d4 Surrogate: Toluene-d8		87.9 %		75-125 75-125	,,	,,	*	,,	
		94.0%		75-125 75-125	,,	,,	,,	,,	
Surrogate: 4-Bromofluorobenzene		94.0 %		/3-123	•		-,		



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C5-15, P360cc (E902069-17) Vapor	Sampled: 23-Feb-09 Re	ceived: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	n	**	*1	n	11	
Vinyl chloride	ND	0.10		**	"	11	**	**	
Chloroethane	ND	0.50	**	n		**	н	"	
Trichlorofluoromethane	ND	0.50	**	11	"	**	n	н	
1,1-Dichloroethene	ND	0.50	**	Ħ	**	H	*	*	
Methylene chloride	ND	0.50		n	**	и	**	"	
Freon 113	ND	0.50	,,	n	**	н	n	п	
trans-1,2-Dichloroethene	ND	0.50	58	ħ		"	"	n	
1,1-Dichloroethane	ND	0.50	**	n		"	n	h	
cis-1,2-Dichloroethene	ND	0.50	#4	ħ	**	"	n	n	
Chloroform	ND	0.10	**	Ħ	"	"	n	n	
1,1,1-Trichloroethane	ND	0.50	**	n	39	"	"	н	
Carbon tetrachloride	ND	0.10	**	"	"	"		**	
1,2-Dichloroethane	ND	0.10	*	**	"	**		4	
Benzene	ND	0.10	17	"	11	•	"	"	
Trichloroethene	0.49	0.10			"	*	"	"	
Toluene	ND	1.0	**	,	**	*			
1,1,2-Trichloroethane	ND	0.50		"	"	*		•	
Tetrachloroethene	4.1	0.10	"	"	"	**	•		
Ethylbenzene	ND	0.50	U	"	**	"	"	,	
1,1,2-Tetrachloroethane	ND	0.50	"	я	11	•			
m,p-Xylene	ND	0.50	**	**	**	*		*	
o-Xylene	ND	0.50	**	19	**	•		*	
1,1,2,2-Tetrachloroethane	ND	0.50	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		"		**		
Surrogate: Dibromofluoromethane		103 %	75	-125	,,	,,	"	"	
Surrogate: 1,2-Dichloroethane-d4		92.5 %	75	-125	* .	"	"	"	
Surrogate: Toluene-d8		94.1 %	75	-125	"	"	*	"	
Surrogate: 4-Bromosluorobenzene		98.3 %	75	-125	n	"	и	"	



1000-A Ortega Way Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
,				racioi	Daten	Перагси	Analy 220	Wellog	110103
C5-5, P330cc (E902069-18) Vapor									
1,1-Difluoroethane (LCC)	ND	10	սք/1	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	"	"	47	"		
Vinyl chloride	ND	0.10	"	"	*	"	"		
Chloroethane	ND	0.50		"	"	**	**	н	
Trichlorofluoromethane	ND	0.50	**	"	"	11	"	"	
1,1-Dichloroethene	ND	0.50	μ	"	**	"	•	**	
Methylene chloride	ND	0.50	,,	"	**	"	"	"	
Freon 113	ND	0.50	*	"	v	**	•	4	
trans-1,2-Dichloroethene	ND	0.50	"		**	н	"	**	
1,1-Dichloroethane	ND	0.50	r	n	**	"		**	
cis-1,2-Dichloroethene	ND	0.50	**	•	**	*	*	"	
Chloroform	ND	0.10	**	"	**	*	"	•	
1,1,1-Trichlorocthane	ND	0.50	**	"	**	**	"	**	
Carbon tetrachloride	ND	0.10		"	**		**	*	
1,2-Dichloroethane	ND	0.10	"	"	**	*	"	4	
Benzene	ND	0.10	11				*	M	
Trichloroethene	ND	0.10		"	Ħ	*	,,	**	
Toluene	ND	1.0	**	•	n	•		44	
1,1,2-Trichloroethane	ND	0.50			*	**		•	
Tetrachloroethene	0.19	0.10	**	*	Ħ	**		"	
Ethylbenzene	ND	0.50	51	"	n	*		"	
1,1,2-Tetrachloroethane	ND	0.50	11		**	•	•	•	
m,p-Xylene	ND	0.50		*	15	•	u	•	
o-Xylene	ND	0.50	**	*	н	•	#	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"		**		**	**	
		103.04		75 126	, , , , , , , , , , , , , , , , , , ,	,,	n		ner van van van het het het het het het het het het het
Surrogate: Dibromofluoromethane		102 %		75-125	,,	,	,	"	
Surrogate: 1,2-Dichloroethane-d4		87.2 %		75-125	-			,,	
Surrogate: Toluene-d8		94.7 %		75-125	*	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	7	75-125	n	"	n	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C4-15, P360cc (E902069-19) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09		***************************************				
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,	**	"	11	**	•	
Vinyl chloride	ND	0.10	"		**	11	**	**	
Chloroethane	ND	0.50	"	•,	**	Nr.	*1	n	
Trichlorofluoromethane	ND	0.50	"	••	**	**	n	"	
1,1-Dichloroethene	ND	0.50	"	**	"	11	H	u u	
Methylene chloride	ND	0.50	"	43	**	м	**	n	
Freon 113	ND	0.50	"	13	**	n	**	"	
trans-1,2-Dichloroethene	ND	0.50	"	61	"	ч	**	"	
1,1-Dichloroethane	ND	0.50	*		"	"	**	"	
cis-1,2-Dichloroethene	ND	0.50	"	**	"	"	**	*	
Chloroform	ND	0.10	r	**	#	u		*	
1,1,1-Trichloroethane	ND	0.50	"	41	**	n	**	**	
Carbon tetrachloride	ND	0.10	"	**	**	**	"	"	
1,2-Dichloroethane	ND	0.10	"	**	**	н	**	"	
Benzene	ND	0.10	"	**	**	•	**	"	
Trichloroethene	0.75	0.10	11	**	"	"	10		
Toluene	ND	1.0	"	,,	**	n	"	4	
1,1,2-Trichloroethane	NC	0.50	11	n	**	"			
Tetrachloroethene	4.6	0.10	11	r	**		"	4	
Ethylbenzene	NC	0.50	"	"	**		**	**	
1,1,2-Tetrachloroethane	NE		"	**	**	*	**	"	
m,p-Xylene	NC		"		**	"	"	"	
o-Xylene	NC		**	,	"	•	,,	,,	
1,1,2,2-Tetrachloroethane	NC		11	"	"	"	H	"	~~~
Surrogate: Dibromofluoromethane		106 %		75-125	,,	,,	,,	n	
Surrogate: 1,2-Dichloroethane-d4		88.9 %		75-125	"	*	"	н	
Surrogate: Toluene-d8		92.8 %		75-125	,,	"	n	"	
Surrogate: 4-Bromofluorobenzene		102 %		75-125	"	"	"	"	



Project: EAU022309-SB1/L4

1000-A Ortega Way Placentia, CA 92670 Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C4-15 Dup, P410cc (E902069-20) Vapor	Sampled: 23-Feb-09	Received: 23	-Feb-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92301	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	*	**	**	**		"	
Vinyl chloride	ND	0.10	**	"	*	n	**	*	
Chloroethane	ND	0.50	"	1)	"	*	*	"	
Trichlorofluoromethane	ND	0.50	•	**	"	"	*	"	
1,1-Dichloroethene	ND	0.50		"	"	"	**	"	
Methylene chloride	ND	0.50	*	n	*	H	n	•	
Freon 113	ND	0.50	r	**	"	"	n	"	
trans-1,2-Dichloroethene	ND	0.50		"	11	**	"	•	
1,1-Dichloroethane	ND	0.50	•	n	**	**	**	*	
cis-1,2-Dichloroethene	ND	0.50		ts	*	"	•	"	
Chloroform	ND	0.10	"	*	**	**	n	"	
1,1,1-Trichloroethane	ND	0.50	"	*1		**	**	4	
Carbon tetrachloride	ND	0.10	**	"	*	*	•	"	
1,2-Dichloroethane	ND	0.10	"	**	**	**	**	"	
Benzene	ND	0.10	**		**	•	**	*	
Trichloroethene	0.75	0.10		**	Ħ	*	**	"	
Toluene	ND	1.0	**	p	*	•	*	•	
1,1,2-Trichloroethane	ND	0.50	,,	*	н	**	**	"	
Tetrachloroethene	4.7	0.10	**	,,		•	**	•	
Ethylbenzene	ND	0.50		**	11	*		"	
1,1,1,2-Tetrachloroethane	ND	0.50	**	#	*	"	**	**	
m,p-Xylene	ND	0.50	"	**	n	0	н .	"	
o-Xylene	ND	0.50	*	*	**	*	**	1*	
1,1,2,2-Tetrachloroethane	ND	0.50	H	jt				ļ!	
Surrogate: Dibromofluoromethane		105 %	75	-125	*	*	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		88.7 %	75	-125	,,	"	*	"	
Surrogate: Toluene-d8		94.2 %	75	-125	"	•	*	,,	
Surrogate: 4-Bromofluorobenzene		108 %		-125	*	"	"	"	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E2-5, P330cc (E902070-01) Vapor	Sampled: 23-Feb-09 Rece	ived: 23-Feb-()9						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	ч	**	"	**	47	
Vinyl chloride	ND	0.10	"	ti	"	**	•	**	
Chloroethane	ND	0.50	,,	*1	**	H	•	*	
Trichlorofluoromethane	ND	0.50	"	**	**	н	n	**	
1,1-Dichloroethene	ND	0.50	"	**	"	н	н	"	
Methylene chloride	ND	0.50	"	**	**	11	н	"	
Freon 113	ND	0.50	,,	**	11	n	"	0	
trans-1,2-Dichloroethene	ND	0.50	и	ŧŧ	**	u	9	**	
1,1-Dichloroethane	ND	0.50	**	**	11	"		**	
cis-1,2-Dichloroethene	ND	0.50	n	41	**	Ht.	**	11	
Chloroform	ND	0.10	**	41	**		**	**	
1,1,1-Trichloroethane	ND	0.50	,,	**	,,	**	**	"	
Carbon tetrachloride	ND	0.10	**	н	"	**	**	n	
1,2-Dichloroethane	ND	0.10	,,	ч	"	*	•	"	
Benzene	0.12	0.10	"	"	"	**	*	*	
Trichloroethene	ND	0.10	,,	"	н	**	P	**	
Toluene	ND	1.0			н	**	n	"	
1.1.2-Trichloroethane	ND	0.50	tr .		*	•	1*	"	
Tetrachloroethene	ND	0.10	**	*	"	n	**		
Ethylbenzene	ND	0.50	**	**	**	"	**		
1,1,2-Tetrachloroethane	ND	0.50	"	**	**	"	**	"	
m,p-Xylene	ND	0.50	11	"	"	"	**	*	
o-Xylene	ND	0.50	**	,,	"	"	u	"	
1,1,2,2-Tetrachloroethane	ND	0.50	,,	μ	H		ft		
Surrogate: Dibromofluoromethane		101 %	7	5-125	"	,,	,,	n	
Surrogate: 1,2-Dichloroethane-d4		98.2 %	7	5-125	,,	"	*	,,	
Surrogate: Toluene-d8		102 %		5-125	**	"	**	*	
Surrogate: 4-Bromofluorobenzene		102 %	7	5-125	n	"	"	,,	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E2-15, P350cc (E902070-02) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	11	5 0	**	17	•	**	
Vinyl chloride	ND	0.10	,,	•	#1	**	*	n	
Chloroethane	ND	0.50	**	"	"	**	"	**	
Trichlorofluoromethane	ND	0.50	,,	"	"		•	"	
1,1-Dichloroethene	ND	0.50	"	"	#	**	**	11	
Methylene chloride	ND	0.50	**	"	#	"	"	n	
Freon 113	ND	0.50	**	"	"	"	"	**	
trans-1,2-Dichloroethene	ND	0.50	"		,,	н	"	"	
1,1-Dichloroethane	ND	0.50	*	"	**	•	•	"	
cis-1,2-Dichloroethene	ND	0.50	"	**	**	"	*	**	
Chloroform	ND	0.10	11	*	**	**		"	
1,1,1-Trichloroethane	ND	0.50	n	"	**	*	"	**	
Carbon tetrachloride	ND	0.10	11	"	**	*	**	**	
1,2-Dichloroethane	ND	0.10	**	"	11	**	*	н	
Benzene	ND	0.10	11	"	"			**	
Trichloroethene	0.16	0.10	н	•	11	*		"	
Toluene	ND	1.0	**	•	и.	"	**	#	
1,1,2-Trichloroethane	ND	0.50	н	"	11	*		**	
Tetrachloroethene	6.0	0.10	**	*	11	,	**		
Ethylbenzene	ND	0.50		•	Ħ	"	11	*	
1,1,1,2-Tetrachloroethane	ND	0.50	**	ľ	"	"	,,	*	
m,p-Xylene	ND	0.50	**	"	11	"	*		
o-Xylene	ND	0.50	11	,	"	**	**	,,	
1,1,2,2-Tetrachloroethane	ND		н	H	17	"	"	th.	
Surrogate: Dibromofluoromethane		95.3 %		75-125	,,	"	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		97.2 %		75-125	tr	*	"	"	
Surrogate: Toluene-d8		100 %		75-125	7	,,	"	,,	
Surrogate: 4-Bromofluorobenzene		94.4 %		75-125	,,	"	"	"	
Dail Office. 4-Di Olioji aoi Obelizene		77.774		, , , , , ,					



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Resu	Reporting It Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E4-5, P330cc (E902070-03) Vapor	Sampled: 23-Feb-09	Received: 23-Feb-	09						
1,1-Difluoroethane (LCC)	N) 10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	N	0.50	,,	**	*1	**	*	"	
Vinyl chloride	N	0.10	"	"	*	NT.	"	**	
Chloroethane	N	0.50	***	"	н	"	**	*	
Trichlorofluoromethane	N	0.50	"	n	#	**	"	"	
1,1-Dichloroethene	N	D 0.50	**	"	**	"	n	**	
Methylene chloride	N	0.50	"	"	**	**	n	"	
Freon 113	N	D 0.50	,,	**	**	49	,	**	
trans-1,2-Dichloroethene	N	D 0.50	t.	"	20	**	n	**	
1,1-Dichloroethane	N	D 0.50	н	"	**	*	n	**	
cis-1,2-Dichloroethene	N	D 0.50			78	**	"	49	
Chloroform	N	D 0.10	*	"	**	"	"	**	
1,1,1-Trichloroethane	N	D 0.50	**	**	11	"		n	
Carbon tetrachloride	N	D 0.10	14	н	"	**		**	
1,2-Dichloroethane	N	D 0.10	**	*	11	"	"	**	
Benzene	0.1	8 0.10	"	,	"	•	"		
Trichloroethene	N	D 0.10	**	*	**	•	"	"	
Toluene	N	D 1.0	"	*	**	**	*		
1,1,2-Trichloroethane	N	D 0.50	н		11	*	*		
Tetrachloroethene	N	D 0.10	u	"	11	n	*		
Ethylbenzene	N	D 0.50	**	"	и	17	P	**	
1,1,2-Tetrachloroethane	N	D 0.50	**	"	11	•	"	*	
m,p-Xylene	N	D 0.50	*	"	"	"		**	
o-Xylene	N		10	*	"	"		11	
1,1,2,2-Tetrachloroethane	N			#	"	"		11	
Surrogate: Dibromofluoromethane		96.9 %		75-125	,,	,,	,,	n	
Surrogate: 1,2-Dichloroethane-d4		102 %		75-125	"	"	n	"	
Surrogate: Toluene-d8		103 %		75-125	"	"	"	n	
Surrogate: 4-Bromofluorobenzene		102 %		75-125	"	"	**	"	



1000-A Ortega Way

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
E4-15, P350cc (E902070-04) Vapor				1 401.7					
1,1-Difluoroethane (LCC)	ND		ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	r r	"	11	#	. "		
Vinyl chloride	ND	0.10	,,	•	**	n	n		
Chloroethane	ND		11	,	*	"	"	11	
Trichlorofluoromethane	ND		п		**	*		w	
1,1-Dichloroethene	ND		**	"	11	**	•	**	
Methylene chloride	ND		,,	**	**	11	n	Ħ	
Freon 113	ND		*	h	11	"	"	Ħ	
trans-1,2-Dichloroethene	ND				**	*			
1,1-Dichloroethane	ND	0.50	**		*				
cis-1,2-Dichloroethene	ND		rı	•	**	u		*1	
Chloroform	0.15	0.10				**	**	"	
1,1,1-Trichloroethane	ND	0.50	**	**	**	11	n	*	
Carbon tetrachloride	0.12	0.10	ľ	"	11	**	n	n	
1,2-Dichloroethane	ND	0.10	"	"	**	•	**	u	
Benzene	ND	0.10	#	**	"		**	**	
Trichloroethene	1.7	0.10	**		**	•		**	
Tolnene	1.0	1.0	11	•	*	"	**	**	
1,1,2-Trichloroethane	NE	0.50	17	*	Ħ	•	"	**	
Tetrachloroethene	5.8	0.10	19	•	#	*	"	"	
Ethylbenzene	0.65	0.50	н	"	**	•	"		
1,1,1,2-Tetrachloroethane	ND	0.50	**	*	"	"	•	*	
m,p-Xylene	2.4	0.50	17	"	"	"	"	•	
o-Xylene	0.82	0.50	*	n	"	"	*	"	
1,1,2,2-Tetrachloroethane	NE	0.50	11		**	"	"	10	
Surrogate: Dibromofluoromethane		94.5 %		75-125	"		,	•	
Surrogate: 1,2-Dichloroethane-d4		98.2 %		75-125	*	"	,,	,,	
Surrogate: Toluene-d8		110 %		75-125	,,	,,	"		
Surrogate: 4-Bromofluorobenzene		93.0 %		75-125 75-125	"	,	"	,,	
Surrogate: 4-Dromojtuorobenzene		73.0 70		, 5-125					



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D1-5, P330cc (E902070-05) Vapor	Sampled: 23-Feb-09 Rece	ived: 23-Feb-()9						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,	**	"	"	**	"	
Vinyl chloride	ND	0.10	"	"	11	"	•	"	
Chloroethane	ND	0.50	,,	"	**	м	**	"	
Trichlorofluoromethane	ND	0.50	"	"	н	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	**	*	н	"	
Methylene chloride	ND	0.50	41	"	"	M	"	u	
Freon 113	ND	0.50	**	"	**	н	**	"	
trans-1,2-Dichloroethene	ND	0.50	**	"	**	n	"	•	
1,1-Dichloroethane	ND	0.50	**	•	**	n	**	**	
cis-1,2-Dichloroethene	ND	0.50	P	"	"	н	**	•	
Chloroform	ND	0.10		**	,,	**	•	n	
1,1,1-Trichloroethane	ND	0.50	**	**	**	"	"	"	
Carbon tetrachloride	ND	0.10	71	"	11	**	n	**	
1,2-Dichloroethane	ND	0.10	**	"	11	19	n	41	
Benzene	ND	0.10	**	*	**	n	**	n	
Trichloroethene	ND	0.10		"	**	n		n	
Toluene	ND	1.0		n	**	"		**	
1,1,2-Trichloroethane	ND	0.50	**	"	81		,,	**	
Tetrachloroethene	0.19	0.10	17	,	17	"			
Ethylbenzene	ND	0.50	#	,,	11	"	**	"	
1,1,1,2-Tetrachloroethane	ND	0.50	11	"	11	**	**	"	
m,p-Xylene	ND	0.50	**	"	**	n	n	**	
o-Xylene	ND	0.50	**	*	11	*	**	1*	
1,1,2,2-Tetrachloroethane	ND	0.50	"	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	"	n		*	
Surrogate: Dibromofluoromethane		107 %	7	75-125	,,	,,	"	"	
Surrogate: 1,2-Dichloroethane-d4		108 %		75-125	"	"	"	"	
Surrogate: Toluene-d8		104%		75-125	**	*	#	"	
Surrogate: 4-Bromofluorobenzene		98.0 %		75-125	#	n	"	"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/LA

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D1-15, P350cc (E902070-06) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09				<u> </u>		
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	*	**	**	н	*	**	
Vinyl chloride	ND	0.10	"	"	**		•	•	
Chloroethane	ND	0.50	"	**	*	11	*1	•	
Trichlorofluoromethane	ND	0.50	"	*	"	*	**	"	
1,1-Dichloroethene	ND	0.50		u	н	н	**	"	
Methylene chloride	ND	0.50	•	*	**	"	*	"	
Freon 113	ND	0.50	"	**	**	11		u	
trans-1,2-Dichloroethene	ND	0.50	"	ч	"	н	**	*	
1,1-Dichloroethane	ND	0.50	,,	•	n	**	**	*	
cis-1,2-Dichloroethene	ND	0.50	"	"	**	n	**	**	
Chloroform	ND	0.10	"	**	*	*	•	**	
1,1,1-Trichloroethane	ND	0.50	*	•	*	11	n	**	
Carbon tetrachloride	ND	0.10	,,	**	*	*	n	"	
1,2-Dichloroethane	ND	0.10	,,	11	*	n	"	"	
Benzene	ND	0.10	"	,,	*	**	41	"	
Trichloroethene	ND	0.10	**		**	*	**	"	
Toluene	ND	1.0	**	11	**	•	"	•	
1,1,2-Trichloroethane	ND	0.50	"	п	**	n	**		
Tetrachloroethene	2.4	0.10	**	*	"	•			
Ethylbenzene	NC	0.50		"	н	, ,		•	
1,1,2-Tetrachloroethane	ND	0.50	**	*	**		**	**	
m,p-Xylene	NE		"	n	"	4		"	
o-Xylene	NE		4	"	*	**	41	**	
1,1,2,2-Tetrachloroethane	NC		"	n	n	,,))	»	
Surrogate: Dibromosluoromethane		97.7 %		75-125	,,	,,	p.	n	
Surrogate: 1,2-Dichloroethane-d4		98.8 %		75-125	,,	"	,	*	
Surrogate: Toluene-d8		102 %		75-125	"		#	,,	
Surrogate: 4-Bromofluorobenzene		100 %		75-125		,,	,,	,,	



1000-A Ortega Way Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Project Manager: Mr. Steve Bright Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D2-5, P330cc (E902070-07) Vapor	Sampled: 23-Feb-09 Re	eceived: 23-Feb-(09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	**	n	ır	**	*	
Vinyl chloride	ND	0.10	**	"	*	h	**	Ħ	
Chloroethane	ND	0.50	,,	**	Ħ	"	**	"	
Trichlorofluoromethane	ND	0.50	**	**	*	"	**	11	
1,1-Dichloroethene	ND	0.50	#	n	11	н	"	н	
Methylene chloride	ND	0.50	,	"	11	н	**	u	
Freon 113	ND	0.50	11	n	"	н	n	**	
trans-1,2-Dichloroethene	ND	0.50	"	n	11	H	**	49	
1,1-Dichloroethane	ND	0.50	"	n	**	*		41	
cis-1,2-Dichloroethene	ND	0.50	"		"	*		41	
Chloroform	ND	0.10	"	9	"	*	•	*1	
1,1,1-Trichloroethane	ND	0.50	**	**	"	*	"	*1	
Carbon tetrachloride	ND	0.10	n	*1	**	"	•	*	
1,2-Dichloroethane	ND	0.10	м	"	"	**	,,	"	
Benzene	0.16	0.10	**	*	н	**		**	
Trichloroethene	ND	0.10	н	"	19	**		я	
Toluene	ND	1.0	н	*		"		"	
1,1,2-Trichloroethane	ND	0.50	**	"	11	"		**	
Tetrachloroethene	ND	0.10	**	n	21	*1	**	"	
Ethylbenzene	ND	0.50	#	n	11	,	**	,,	
1,1,2-Tetrachloroethane	ND	0.50	ŧI	"	11	•		u	
m,p-Xylene	ND	0.50	**	**	n	n	"	"	
o-Xylene	ND	0.50	11	"		*	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	11	"	"	**			
Surrogate: Dibromofluoromethane		95.2 %	7	75-125	"	**	,,	n	
Surrogate: 1,2-Dichloroethane-d4		92.4 %	7	75-125	"	"	"	"	
Surrogate: Toluene-d8		99.2 %	7	75-125	*	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	;	75-125	"	"	"	"	



1000-A Ortega Way

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

	Dte	Reporting	D-fa-	Dilution	Death	Drawand	Anabirad	Made	Notes
Analyte	Result	Limit	Units	Factor	Batch	Prepared	Analyzed	Method	Notes
D2-15, P350cc (E902070-08) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	b-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,,	"	**	*		"	
Vinyl chloride	ND	0.10	**	*	**	"	*	"	
Chloroethane	ND	0.50		n	"	H	**	**	
Trichlorofluoromethane	ND	0.50	•	"	Ħ	**	**		
1,1-Dichloroethene	ND	0.50	"	**	**	"	"	••	
Methylene chloride	ND	0.50	"	"	"	н	"	u	
Freon 113	ND	0.50	**	"	*	Ħ	n		
trans-1,2-Dichloroethene	ND	0.50	11	*	н	n	"	•	
1,1-Dichloroethane	ND	0.50		*	**	H		*	
cis-1,2-Dichloroethene	ND	0.50	11	•	"	"	"		
Chloroform	ND	0.10	я		۳.	"	•	n	
1,1,1-Trichloroethane	ND	0.50	71	•	"	"	*	"	
Carbon tetrachloride	ND	0.10	"	•	"	•	•	*	
1,2-Dichloroethane	ND	0.10	**	*	**	**	•	"	
Benzene	0.11	0.10	**	,	**	*	**	"	
Trichloroethene	0.36	0.10	**	"	"	"	*	•	
Toluene	NE	1.0	11	,	**	"	**		
1,1,2-Trichloroethane	NE	0.50	**	"	"	•	**	*	
Tetrachloroethene	6.1	0.10	**	"	n	"	*	p	
Ethylbenzene	NE	0.50	н	"	"	*	"	n	
1,1,1,2-Tetrachloroethane	NE	0.50	**	"	"	n	"	"	
m,p-Xylene	NE	0.50	11	*	"	"	**	"	
o-Xylene	NE	0.50	*	•	*	**	n	11	
1,1,2,2-Tetrachloroethane	NE	0.50	н	**	•	,,	**	*	
Surrogate: Dibromofluoromethane		102 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		87.6%		75-125	"	n	*	n	
Surrogate: Toluene-d8		99.1 %		75-125	"	. "	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %		75-125	"	•	"	,	
-									



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Reporting Dilution										
Analyte	Result	Limit	Units	Factor	Batch	Prepared	Analyzed	Method	Notes	
D3-5, P330cc (E902070-09) Vapor	Sampled: 23-Feb-09 Re	ceived: 23-Feb-	09		,					
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B		
Dichlorodifluoromethane	ND	0.50		п	"	11	n	ti		
Vinyl chloride	ND	0.10	"	ų	**	Ħ	"	e		
Chloroethane	ND	0.50	"	u	rt .	H	n	**		
Trichlorofluoromethane	ND	0.50	"	"	*1	ı,	n	ij		
1,1-Dichloroethene	ND	0.50	n	•	**	n.	u	н		
Methylene chloride	ND	0.50	н	H	,,	"	**	11		
Freon 113	ND	0.50	p	**	H	Ħ	"	+1		
trans-1,2-Dichloroethene	ND	0.50	n		s 1	**	n	ч		
1,1-Dichloroethane	ND	0.50	"	.,	н	н	н	n		
cis-1,2-Dichloroethene	ND	0.50	,,	***	н	li .	н	H		
Chloroforin	ND	0.10	n	n	Ħ	"	n	tı.		
1,1,1-Trichloroethane	ND	0.50	н	**	н	Ħ	u	11		
Carbon tetrachloride	ND	0.10	•	"	#	Ħ	11	41		
1,2-Dichloroethane	ND	0.10	**	н	Ħ	'n	η	Ħ		
Benzene	ND	0.10	17	#	19	"	**	•		
Trichloroethene	ND	0.10	*	n	"	**	*	"		
Toluene	ND	1.0	br	P	11	n	**	ď		
1,1,2-Trichloroethane	ND	0.50	"	*	n	*	10	п		
Tetrachloroethene	ND	0.10		**	н	u u	19	11		
Ethylbenzene	ND	0.50	"	**	H	n.	n	n		
1,1,1,2-Tetrachloroethane	ND	0.50	11	,	"	n	R	**		
m,p-Xylene	ND	0.50	Ħ	n	11	**	0	•		
o-Xylene	ND	0.50	ır	ĮI.	ti	*1		"		
1,1,2,2-Tetrachloroethane	ND	0.50	tr	п	**	**	,,	11		
Surrogate: Dibromofluoromethane		77.1 %	7	5-125	,,	n	,,	*		
Surrogate: 1,2-Dichloroethane-d4		80.1 %	7	5-125	,,	,	"	n		
Surrogate: Toluene-d8		101 %		5-125	"	"	n	"		
Surrogate: 4-Bromofluorobenzene		94.6 %	7	5-125	n	"	"	"		



1000-A Ortega Way

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result		Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
D3-15, P350cc (E902070-10) Vapor	Sampled: 23-Feb-09	Received: 23-Fe	b-09						
1,1-Difluoroethane (LCC)	ND		ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	•	"	"	11	**	u	
Vinyl chloride	ND	0.10	"	**	*	**	**	η	
Chloroethane	ND	0.50		"	11	*		"	
Trichlorofluoromethane	ND	0.50	•	"	**	"	**	**	
1,1-Dichloroethene	ND	0.50	*	**	#	"	u		
Methylene chloride	ND	0.50	**	"	н	11	**	11	
Freon 113	ND	0.50	"	"	11	и .	**	n	
trans-1,2-Dichloroethene	ND	0.50	**	•	**		"	*	
1,1-Dichloroethane	ND	0.50		**	#	*		*	
cis-1,2-Dichloroethene	ND	0.50	'n		**	*	**	4	
Chloroform	ND	0.10	,,	•	**	*		**	
1,1,1-Trichloroethane	ND	0.50	н	**		*	n	**	
Carbon tetrachloride	ND	0.10	,,	*	**	•	"	n	
1,2-Dichloroethane	ND	0.10	**	"	**	*	u	n	
Benzene	ND	0.10	17	,	11	•	*	**	
Trichloroethene	3.7	0.10	*	n	**	*		"	
Toluene	ND		11	*	**		*	*	
1,1,2-Trichloroethane	ND	0.50	**	"	n	n	р	,	
Tetrachloroethene	9.9	0.10	1)		"	•	*		
Ethylbenzene	NC	0.50	17	**	"	•	r	"	
1,1,2-Tetrachloroethane	NE	0.50	"	,	**	,	"	**	
m,p-Xylene	NE		11	"	"	•	*	"	
o-Xylene	NE		**	*	u	•	**	"	
1,1,2,2-Tetrachloroethane	NE		н	"	"		li .	ji	ere un en en en en en en en en en en en en en
Surrogate: Dibromofluoromethane		79.2 %	;	75-125	*	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		77.8 %	:	75-125	**	•	"	"	
Surrogate: Toluene-d8		100 %		75-125	"	•	•	,,	
Surrogate: 4-Bromosluorobenzene		97.3 %		75-125	"	"	"	#	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Resul	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
A5-5, P330cc (E902070-11) Vapor	Sampled: 23-Feb-09	Received: 23-Feb-	09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50		**	*	H	**	n	
Vinyl chloride	ND	0.10	**	**	,	**	**	н	
Chloroethane	ND	0.50	**	**	**	**	**	п	
Trichlorofluoromethane	ND	0.50	n	u	"	"	"	n	
1,1-Dichloroethene	NC	0.50	n	11	**	11	12	tt	
Methylene chloride	NE	0.50	n	**	**	11	н	н	
Freon 113	NE	0.50	"	**	**	n	"	"	
trans-1,2-Dichloroethene	ND	0.50	**	h	,,	**	"	"	
1,1-Dichloroethane	NC	0.50	**	n	**	n	•	u	
cis-1,2-Dichloroethene	NE	0.50	"	er	**	Ħ	"	**	
Chloroform	ND	0.10	"	**	**	"	•	**	
1,1,1-Trichloroethane	NE	0.50	"	**	"	н	"	"	
Carbon tetrachloride	NE	0.10	11	**	"	"	n	**	
1,2-Dichloroethane	NE	0.10		**	,,	"	n	**	
Benzene	NE	0.10	"		19	n	**	"	
Trichloroethene	NE	0.10	**	*	19			*	
Toluene	NE	1.0	**	**	*	"		*	
1,1,2-Trichloroethane	NE	0.50			11	"	**	n	
Tetrachloroethene	NE	0.10	Nr.		**	"	**	*	
Ethylbenzene	NE	0.50	er .	*	#	"	**	*	
1,1,1,2-Tetrachloroethane	NE	0.50	"	В	н	"	**	#	
m,p-Xylene	NC	0.50	"	re	**	"	,,	**	
o-Xylene	NE	0.50	**	16	**	"	**	te	
1,1,2,2-Tetrachloroethane	NC	0.50		,,		"	11	#	
Surrogate: Dibromofluoromethane		93.3 %		75-125	"	,,	,,	"	
Surrogate: 1,2-Dichloroethane-d4		86.6 %		75-125	**	n	,,	"	
Surrogate: Toluene-d8		101 %		75-125	,,	"	**	"	
Surrogate: 4-Bromofluorobenzene		98.1 %		75-125	"	"	"	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	n Batch	Prepared	Analyzed	Method	Notes
A5-15, P350cc (E902070-12) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	*	и	**	**	**		
Vinyl chloride	ND	0.10	n	**	**	**	"	*	
Chloroethane	ND	0.50	*	H	"	*	*	•	
Trichlorofluoromethane	ND	0.50	"	"	*	**	*	"	
1,1-Dichloroethene	ND	0.50	Ħ	н	**	"	"	•	
Methylene chloride	ND	0.50	"	**	Ħ	**	n		
Freon 113	ND	0.50			**	n	"	"	
trans-1,2-Dichloroethene	ND	0.50	*	н	11	"	n	41	
1,1-Dichloroethane	ND	0.50	,,	**	*	**	•	*	
cis-1,2-Dichloroethene	ND	0.50	**	n	,	n .		4	
Chloroform	ND	0.10	,	п	н	11		11	
I,1,1-Trichloroethane	ND	0.50	*	41	**	н	**	**	
Carbon tetrachloride	ND	0.10	"	*1	*	*	*	"	
1,2-Dichloroethane	ND		"	HT .	н	"	**	**	
Benzene	ND		17	**	*	•	•	,,	
Trichloroethene	ND		,,	*	**	•	*		
Toluene	NC	1.0	**	n	**	•		,	
I,1,2-Trichloroethane	NC				**		**		
Tetrachloroethene	2.4		"	,	**				
Ethylbenzene	NE			n	**	**	**	**	
1,1,2-Tetrachloroethane	NE		**	n	**	"	•		
m,p-Xylene	NC		**	n	"		"	**	
o-Xylene	NC		**	μ	**	n	**	,	
1,1,2,2-Tetrachloroethane	NE		,,	**	*	"	*	"	
Surrogate: Dibromosluoromethane		104 %		75-125	,,	"	,,	"	
Surrogate: 1,2-Dichloroethane-d4		93.4 %		75-125 75-125	,,	*	n	"	
Surrogate: Toluene-d8		104 %		75-125 75-125	,,	n		,,	
Surrogate: 4-Bromosluorobenzene		88.8 %		75-125 75-125	"	"	"	,,	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
A4-15, P350cc (E902070-13) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	**	**	"	**	**	
Vinyl chloride	ND	0.10	"	**	**	**	**	**	
Chloroethane	ND	0.50	+1	**	"	"	"	**	
Trichlorofluoromethane	ND	0.50	#	**	**	"	**	n	
1,1-Dichloroethene	ND	0.50	#	**	"	"	**	n	
Methylene chloride	ND	0.50	a	**	*	**	**	**	
Freon 113	ND	0.50	,,	**	**	tt .		ч	
trans-1,2-Dichloroethene	ND	0.50		**	79	4	"	**	
1,1-Dichloroethane	ND	0.50	"	*1	27	**	•	**	
cis-1,2-Dichloroethene	ND	0.50	"	41	"	**	. "	11	
Chloroform	ND	0.10		"	**		"	N.	
1,1,1-Trichloroethane	ND	0.50	"	"	11	"	*	**	
Carbon tetrachloride	ND	0.10	"	"	11	n	**	*	
1,2-Dichloroethane	ND	0.10	,,	"	11	"	**	*	
Benzene	0.15	0.10	"	"	19	"	**	*	
Trichloroethene	ND	0.10		"	•	n	**	n	
Toluene	ND	1.0	"	"	"	"		**	
1.1.2-Trichloroethane	ND	0.50						•	
Tetrachloroethene	2.9	0.10	11	,		•		**	
Ethylbenzene	ND	0.50		,,	"	"	h	**	
1,1,1,2-Tetrachloroethane	ND	0.50	"	*	11		n	"	
m,p-Xylene	ND	0.50		"	11	n	n	п	
o-Xylene	ND	0.50	"	"	"			31	
1,1,2,2-Tetrachloroethane	ND	0.50	11	"			h	H	
Surrogate: Dibromofluoromethane		93.8 %	7.	5-125	"	"	,,	n	
Surrogate: 1,2-Dichloroethane-d4		86.7 %	7.	5-125	*	"	"	,	
Surrogate: Toluene-d8		101 %	7.	5-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	7.	5-125	n	"	"	,,	



Project: EAU022309-SB1/L4

1000-A Ortega Way

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
A4-15 Dup, P400cc (E902070-14) Vapor	Sampled: 23-Feb-09	Received: 23	-Feb-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	79	ч	**	u	,	**	
Vinyl chloride	ND	0.10	4	"	**	н	**	**	
Chloroethane	ND	0.50	n	"	"	**	**	*	
Trichlorofluoromethane	ND	0.50	٠	*	**	*	*1	**	
1,1-Dichloroethene	ND	0.50	•	n	24	н	н	"	
Methylene chloride	ND	0.50	"	ч	51	11	**	**	
Freon 113	ND	0.50	,,	**	н	15	n	"	
trans-1,2-Dichloroethene	ND	0.50	**	41	#	*	*	"	
1,1-Dichloroethane	ND	0.50	Ħ	ч	*	u	,	"	
cis-1,2-Dichloroethene	ND	0.50		**	*	11	в	**	
Chloroform	ND	0.10	n	4	н	11		••	
1,1,1-Trichloroethane	ND	0.50	,,	11	"	11		•	
Carbon tetrachloride	ND	0.10	,,	4	**	*	**	**	
1,2-Dichloroethane	ND	0.10	"	4	"	**	•	*	
Benzene	0.10	0.10	"	*	*	41	•		
Trichloroethene	ND	0.10	,,	,,	**	*		n	
Toluene	ND	1.0	H	*	"	"	**	**	
1,1,2-Trichloroethane	ND	0.50	. "	"	**	**	*	•	
Tetrachloroethene	2.4	0.10	11	**	**	•	44	**	
Ethylbenzene	ND	0.50	"	•	"	**			
1,1,1,2-Tetrachloroethane	ND	0.50	ы	*	**	41	**	**	
m,p-Xylene	ND	0.50	**		"	re .	м	17	
o-Xylene	ND	0.50	**	,	11		*	н	
1,1,2,2-Tetrachloroethane	ND	0.50	н	,,	"	"	"	n	
Surrogate: Dibromofluoromethane		93.7 %		75-125	Ħ	n	n	н	
Surrogate: 1,2-Dichloroethane-d4		87.7 %		75-125	*	,	,	,,	
Surrogate: Toluene-d8		101 %		75-125	n	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	:	75-125	n	"	"	"	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
A4-5, P330cc (E902070-15) Vapor	Sampled: 23-Feb-09 R	leceived: 23-Feb-	09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	**	11	11	"	**	
Vinyl chloride	ND	0.10	,	*	"	u	*1		
Chloroethane	ND	0.50	**	"	**			н	
Trichlorofluoromethane	ND	0.50	n	"	"	"		n	
1,1-Dichloroethene	ND	0.50	Ħ	**	"	4	"	"	
Methylene chloride	ND	0.50	**	"	"		**	**	
Freon 113	ND	0.50	,,	"	*	*	n	n	
trans-1,2-Dichloroethene	ND	0.50	*	"	**	*	n	**	
1,1-Dichloroethane	ND	0.50	,,	11	"	**	n	*1	
cis-1,2-Dichloroethene	ND	0.50	,,	"	н	**	19	tr.	
Chloroform	ND	0.10	**	**	. #	n	•	"	
1,1,1-Trichloroethane	ND	0.50	"	**	*	"	"	"	
Carbon tetrachloride	ND	0.10	**	*	11	H	"	n	
1,2-Dichloroethane	ND	0.10	,,	n	,,	H	"	"	
Benzene	0.26	0.10	u	n	11	'n	*	n	
Trichloroethene	ND	0.10		"	**	*	**	*	
Toluene	ND	1.0	1f	,	**	n	"		
1,1,2-Trichloroethane	ND	0.50	.,	•	11	**	"		
Tetrachloroethene	ND	0.10	17	*	11	•	"	**	
Ethylbenzene	ND	0.50	Ħ	"	"	•		4	
1,1,1,2-Tetrachloroethane	ND	0.50	**	"	11	•	n		
m,p-Xylene	ND	0.50	11	"	"	*	"	*	
o-Xylene	ND	0.50	*	,,	"	*	*	•	
1,1,2,2-Tetrachloroethane	ND	0.50	н		"		**		er agen gall dies den den van hen van der met den
Surrogate: Dibromofluoromethane		97.8 %	75	i-125	u	~	"	"	
Surrogate: 1,2-Dichloroethane-d4		89.5 %	75	-125	,,	*	"	n	
Surrogate: Toluene-d8		106 %	75	5-125	n	,,	**	n	
Surrogate: 4-Bromofluorobenzene		94.4 %		5-125	n	"	"	,,	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
				ractor	Datell	1 Topal CO	Analy ZCAI	- IVICUIOS	ivotes
B4-5, P330cc (E902070-16) Vapor									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	•	"	**	**	"	**	
Vinyl chloride	ND	0.10	•	**	M	**	"	в	
Chloroethane	ND	0.50	,,	**	11	W	"	•	
Trichlorofluoromethane	ND	0.50	"	"	**	Ħ	н	**	
1,1-Dichloroethene	ND	0.50	n	•	**	u	u	**	
Methylene chloride	ND	0.50	*	**	*	н	"	**	
Freon 113	ND	0.50	**	**	**	"	n	**	
trans-1,2-Dichloroethene	ND	0.50	pt.	"	29	•	"	•	
1,1-Dichloroethane	ND	0.50	**	**	"	*	•	**	
cis-1,2-Dichloroethene	ND	0.50	11	"	1*	•	"	**	
Chloroform	ND	0.10	,,	"	"	•	"	"	
1,1,1-Trichloroethane	ND	0.50	#	"	11	**	"	*1	
Carbon tetrachloride	ND	0.10	"	"	H	**		11	
1,2-Dichloroethane	ND	0.10		•	**	"	"	•	
Benzene	ND	0.10	"		Ħ	*	**		
Trichloroethene	ND	0.10	"	"	*	n	n	12	
Toluene	ND	1.0	"	,		,		"	
1,1,2-Trichloroethane	ND	0.50			**	**	11	,,	
Tetrachloroethene	0.17	0.10	н	"	n	**	•	п	
Ethylbenzene	ND	0.50		"	**	**	"	*	
1,1,1,2-Tetrachloroethane	ND	0.50	17	"	11	n	*	"	
m,p-Xylene	ND	0.50	u	"	17	**	u	"	
o-Xylene	ND	0.50	**	"	ų	n	"	**	
1,1,2,2-Tetrachloroethane	ND	0.50	**	"	"	#		li li	of the party of the party and the party and the party of
Surrogate: Dibromofluoromethane		100 %	75	5-125	,,	"	"	n	
Surrogate: 1,2-Dichloroethane-d4		90.6 %		5-125	"	•	*	"	
Surrogate: Toluene-d8		104%		5-125	"	**	*	,,	
Surrogate: 4-Bromofluorobenzene		102 %		5-125	*	#	"	. "	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Project Manager: Mr. Steve Bright Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B4-15, P350cc (E902070-17) Vapor	Sampled: 23-Feb-09	Received: 23-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92302	23-Feb-09	23-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	**	"	**	**		
Vinyl chloride	ND	0.10	"	*	**	"	**		
Chloroethane	ND	0.50	,,	"	"	H	"	"	
Trichlorofluoromethane	ND	0.50	"		"	"	**	**	
1,1-Dichloroethene	ND	0.50	,,	"	+1	"	"	**	
Methylene chloride	ND	0.50		"	11	11	**	**	
Freon 113	ND	0.50	**	**	*	*1		"	
trans-1,2-Dichloroethene	ND	0.50		0	н	"		H	
1.1-Dichloroethane	ND	0.50	"	0	"	н	"	n	
cis-1,2-Dichloroethene	ND	0.50	*	**	11	**	n	n	
Chloroform	ND	0.10	11	"	"	ч	n	n	
1,1,1-Trichloroethane	ND	0.50	"	"	н	Ħ	n	n	
Carbon tetrachloride	ND	0.10	"	"	p	Ħ	n	0	
1,2-Dichloroethane	ND	0.10	P	"	н	**	11	19	
Benzene	0.16	0.10	*1	"	11	n	"	*	
Trichloroethene	0.59		11	*	**	n	**		
Toluene	ND		**	,				•	
1,1,2-Trichloroethane	ND		11	"	**	•		*	
Tetrachloroethene	9.4		"	"	tr		**	**	
Ethylbenzene	NE		"	*	**		**	"	
1,1,1,2-Tetrachloroethane	NE		**	#	**		**	"	
m,p-Xylene	ND		**	**	**	"	*	•	
o-Xylene	NE		"	**	47	•	•	e e	
1,1,2,2-Tetrachloroethane	NC		H			*	t1	†1	
Surrogate: Dibromofluoromethane		99.7 %	;	75-125		"	,,	"	
Surrogate: 1,2-Dichloroethane-d4		95.5 %		75-125	"	"	,	"	
Surrogate: Toluene-d8		93.0 %		75-125	n	,,	"	,,	
Surrogate: 4-Bromosluorobenzene		99.1 %		75-125	"	"	"	"	



Project: EAU022309-SB1/L4

1000-A Ortega Way

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C4-5, P330cc (E902073-01) Vapor	Sampled: 24-Feb-09 Rec	eived: 24-Feb-(09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	**	н	"	**	"	
Vinyl chloride	ND	0.10	"	**	**	17	**	**	
Chloroethane	ND	0.50		*1	"	**	**	**	
Trichlorofluoromethane	ND	0.50	. "	"	**	**	19	4	
1,1-Dichloroethene	ND	0.50	**	.,	"	"	u	•	
Methylene chloride	ND	0.50		10	11	*	*1	•	
Freon 113	ND	0.50	**	**	**	**	"	"	
trans-1,2-Dichloroethene	ND	0.50	,,,	n	*	"	,	*	
1,1-Dichloroethane	ND	0.50	**	**	**	**	•	4	
cis-1,2-Dichloroethene	ND	0.50	**	**	#	**	**	**	
Chloroform	ND	0.10		*	**	"	n	"	
1,1,1-Trichloroethane	ND	0.50		**	1*	n	**		
Carbon tetrachloride	ND	0.10	**	n	"		**	"	
1,2-Dichloroethane	ND	0.10	"	•	**	**		"	
Benzene	ND	0.10		,,		*	*	"	
Trichloroethene	ND	0.10	"	н	"	"		•	
Toluene	ND	1.0	•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	**	•		"	
1,1,2-Trichloroethane	ND	0.50			**	n	P		
Tetrachloroethene	ND	0.10	"	,,	**		*	*	
Ethylbenzene	ND	0.50		"	n			•	
1,1,2-Tetrachloroethane	ND	0.50	"	,,	**	,	,,	•	
m,p-Xylene	ND	0.50	**	"	*	•	**	"	
o-Xylene	ND	0.50	**		**	•	•		
1,1,2,2-Tetrachloroethane	ND	0.50	*	*	"	n	19		
Samonata: Dibrama duara anthon		96.6 %		75-125	*	n	,,	h	
Surrogate: Dibromofluoromethane		90.0 % 82.5 %		75-125 75-125		,,	tr.	,,	
Surrogate: 1,2-Dichloroethane-d4		90.2 %		75-125 75-125	,,			,	
Surrogate: Toluene-d8					"		,,	"	
Surrogate: 4-Bromofluorobenzene		93.3 %		75-125					



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Project Manager: Mr. Steve Bright

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B6-15, P360cc (E902073-02) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	սք/1	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	·
Dichlorodifluoromethane	ND	0.50	ŗ		*1	н	•	и	
Vinyl chloride	ND	0.10	"	**	**	"	n	"	
Chloroethane	ND	0.50	u!	"	"	W	w	יו	
Trichlorofluoromethane	ND	0.50	"	"	**	H	4	n	
1,1-Dichloroethene	ND	0.50	Ħ	'n	#	by	n	ų	
Methylene chloride	ND	0.50	11	**	#	Ħ	**	n	
Freon 113	ND	0.50	"	ч	**	*	19	ti	
trans-1,2-Dichloroethene	ND	0.50	"	**	"	n	11	11	
1,1-Dichloroethane	ND	0.50	łt.	**	#	u	n	1)	
cis-1,2-Dichloroethene	ND	0.50	**	**	n	H	n	Ħ	
Chloroform	ND	0.10	,,	Ħ	n n	n	н	tt	
1,1,1-Trichloroethane	ND	0.50	"	ŧŧ	"	n	n	tt	
Carbon tetrachloride	ND	0.10	11	4	*	"	•	ч	
1,2-Dichloroethane	ND	0.10	ri	11	*	11	n	*1	
Benzene	ND	0.10	11	•	11	n	н	n	
Trichloroethene	0.41	0.10	**	n	"	n	n		
Toluene	ND	1.0	ır	**	"	•	**	N	
1,1,2-Trichloroethane	ND	0.50	\$f	"	Ħ	n	**	ч	
Tetrachloroethene	5.4		tf	"	**	"	n	n	
Ethylbenzene	ND		11	•	11	n	н	,,	
1,1,1,2-Tetrachloroethane	ND	0.50	17	,,	"	'n	н	n	
m,p-Xylene	ND	0.50	11		H	•		**	
o-Xylene	ND		**	n	n	**		"	
1,1,2,2-Tetrachloroethane	ND		н	***	н	"	**	#	
Surrogate: Dibromofluoromethane		102 %		75-125	,,	"	r	"	
Surrogate: 1,2-Dichloroethane-d4		87.9 %		75-125	"	"	"	n	
Surrogate: Toluene-d8		93.7 %		75-125	"	#	n	"	
Surrogate: 4-Bromofluorobenzene		98.0 %		75-125	"	"	7	r	

Mobile Geochemistry Inc.

Environmental Audit

1000-A Ortega Way

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
				ractor	Datai	ricpated	Analyzed	victiod	Notes
B6-5, P330cc (E902073-03) Vapor	_								
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,	**	*	"	"	"	
Vinyl chloride	ND	0.10	"	**	"	**	*	0	
Chloroethane	ND	0.50	"	**	**	"	*	"	
Trichlorofluoromethane	ND	0.50	"	**	,,	"	"	•	
1,1-Dichloroethene	ND	0.50	"	**	"	11	**	"	
Methylene chloride	ND	0.50	"	11	**	"	**	**	
Freon 113	ND	0.50	"	**	"	n	"	•	
trans-1,2-Dichloroethene	ND	0.50	"	**		н	•	"	
1,1-Dichloroethane	ND	0.50	"	**	**	*	•	**	
cis-1,2-Dichloroethene	ND	0.50	*	"	"	"	"	**	
Chloroform	ND	0.10	"	tr	**	**	**	"	
1,1,1-Trichloroethane	ND	0.50	**	**	"	*	**	4	
Carbon tetrachloride	ND	0.10	*	"	**	"		**	
1,2-Dichloroethane	ND	0.10	*	n	**		"	"	
Benzene	ND	0.10	"	H	*	••	*		
Trichloroethene	ND	0.10	"	H	**	•	11	,,	
Toluene	ND	1.0	**	*	u			*	
1,1,2-Trichloroethane	ND	0.50	"	"	*	•			
Tetrachloroethene	ND	0.10	"	*	"	"	**	"	
Ethylbenzene	ND	0.50	и		**	"	**	"	
1,1,1,2-Tetrachloroethane	ND	0.50	**	17	"	*	**	*	
m,p-Xylene	ND	0.50	**	n	*		"	,,	
o-Xylene	ND	0.50	*	#	Ħ	**	**	*	
1,1,2,2-Tetrachloroethane	ND	0.50		, , , , , , , , , , , , , , , , , , ,		"	,,	,,	
Surrogate: Dibromofluoromethane		105 %	7	5-125	,,	,,	,,	,	
		103 % 86.3 %		5-125 5-125	,,	,,	,		
Surrogate: 1,2-Dichloroethane-d4					,,	,	,	"	
Surrogate: Toluene-d8		94.0 %		5-125	,	,,	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	7:	5-125	"	"	"	,,	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B5-15, P360cc (E902073-04) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,	**	**	**	11	11	
Vinyl chloride	ND	0.10	#	tı	11	**	12	"	
Chloroethane	ND	0.50	"	'n	**	**	n	**	
Trichlorofluoromethane	ND	0.50	"	H	*	"	н	**	
1,1-Dichloroethene	ND	0.50	"	11	"	ır	н	**	
Methylene chloride	ND	0.50	"	11	"	W	н	**	
Freon 113	ND	0.50	,,	n	"	н	"	tr	
trans-1,2-Dichloroethene	ND	0.50	**	n	"	ч		**	
1,1-Dichloroethane	ND	0.50	14	"	и	*1	*	19	
cis-1,2-Dichloroethene	ND	0.50	**	**	1*	11		*	
Chloroform	ND	0.10	,	**	*	11		н	
1,1,1-Trichloroethane	ND	0.50	"		**	Ħ	н .	"	
Carbon tetrachloride	ND	0.10	,,	н	**	н	*	"	
1,2-Dichloroethane	ND	0.10	,,	41	"		"	"	
Benzene	ND		11	#	*	"		,,	
Trichloroethene	0.56		**	**	**	"		*	
Toluene	ND		11	*	*			*	
1.1.2-Trichloroethane	ND		,,		**	*	*	*	
Tetrachloroethene	9.3		**	"	**	**	**	*	
Ethylbenzene	ND		"	**	*1	*	,		
1,1,2-Tetrachloroethane	ND		17	11	**	"	,	"	
m,p-Xylene	ND		17	n	"	"	,	**	
o-Xylene	ND		"	,	•	"	11	**	
1,1,2,2-Tetrachloroethane	ND		"	"	"	#			
Surrogate: Dibromofluoromethane		96.0 %		75-125	*	*	"	"	
Surrogate: 1,2-Dichloroethane-d4		83.6 %		75-125	"	"	,,	n	
Surrogate: Toluene-d8		89.3 %		75-125	"	#	**	,,	
Surrogate: 4-Bromofluorobenzene		96.9 %		75-125	,,	"	"	"	



1000-A Ortega Way

Placentia, CA 92670

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B5-5, P330cc (E902073-05) Vapor	Sampled: 24-Feb-09 Rece	ived: 24-Feb-	09						***************************************
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	н	U	и	17	н	n	
Vinyl chloride	ND	0.10	"	**	11	н	*	н	
Chloroethane	ND	0.50	**	н	11	11	,	n	
Trichlorofluoromethane	ND	0.50	**	"	11	n	"	4	
1,1-Dichloroethene	ND	0.50	**	"	"	"	*	ħ	
Methylene chloride	ND	0.50	n	. *	**	**	"	"	
Freon 113	ND	0.50		"	"		•	4	
trans-1,2-Dichloroethene	ND	0.50	**	**	*	*	•	"	
1,1-Dichloroethane	ND	0.50		"	н	**	*	4	
cis-1,2-Dichloroethene	ND	0.50	**	"	Ħ	н	n	87	
Chloroform	ND	0.10		"	11		n	*	
1,1,1-Trichloroethane	ND	0.50	P	**	н	**	"	41	
Carbon tetrachloride	ND	0.10	**	•	#	*	n	**	
1,2-Dichloroethane	ND	0.10	"			n	*	41	
Benzene	ND	0.10	**	"	n	*	"	*	
Trichloroethene	ND	0.10	н	"	H	**	*	n n	
Toluene	ND	1.0			**	*	"	*	
1,1,2-Trichloroethane	ND	0.50		"	**	"	*	n	
Tetrachloroethene	0.24	0.10	17	"	"	•	v	*	
Ethylbenzene	ND	0.50	11	"	п	•	*	•	
1,1,1,2-Tetrachloroethane	ND	0.50	17	"	11	•	"	*	
m,p-Xylene	ND	0.50	**	,	**	"	"	n	
o-Xylene	ND	0.50	**	,,		*	ь	*	
1,1,2,2-Tetrachloroethane	ND	0.50	"	11		n	»	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*****
Surrogate: Dibromofluoromethane		106%		75-125	*	,,	u	"	
Surrogate: 1,2-Dichloroethane-d4		89.3 %		75-125 75-125	"	,,	р	,,	
Surrogate: Toluene-d8		93.3 %		75-125	"	,,	#	,,	
Surrogate: 4-Bromofluorobenzene		93.7 %		75-125	n	"	"	н	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C3-15, P360cc (E902073-06) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/t	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	37	*1	**	**	ĸ	**	
Vinyl chloride	ND	0.10	"	"	**	**	**	"	
Chloroethane	ND	0.50	"	. "	"	**	*1	.,	
Trichlorofluoromethane	ND	0.50	"	"	11	"	**	b	
1,1-Dichloroethene	ND	0.50	"	"	11	11	"	"	
Methylene chloride	ND	0.50	n	"	1*	**	"	"	
Freon 113	ND	0.50	n	**	и	н	•	**	
trans-1,2-Dichloroethene	ND	0.50	*	**	,,	"	**	"	
1,1-Dichloroethane	ND	0.50	,	**	,,	**		п	
cis-1,2-Dichloroethene	ND	0.50	91	**	11	**	**	**	
Chloroform	ND	0.10	**	*1	**	**	•	"	
1,1,1-Trichloroethane	ND	0.50	11	**	"	**	"	**	
Carbon tetrachloride	ND	0.10	**	"	"	**	'n	"	
1,2-Dichloroethane	ND	0.10	*	**	*	11	"	**	
Benzene	ND	0.10	**	"	**	*		"	
Trichloroethene	2.3	0.10	**	*	**	•		a	
Toluene	ND		ч		"	•			
1.1.2-Trichloroethane	ND			"	**	•		•	
Tetrachloroethene	16	0.10	*		**	,,	**		
Ethylbenzene	ND	0.50	II.	"	**		*		
1,1,1,2-Tetrachloroethane	ND		17	"	"	"	n	"	
m,p-Xylene	ND		н		н	"	**	*	
o-Xylene	ND		11	,,	4	*	**	"	
1,1,2,2-Tetrachloroethane	ND		н	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· · · · · · · · · · · · · · · · · · ·		"	"	
Surrogate: Dibromofluoromethane		105 %	75	-125	,,	"	,,	**	
Surrogate: 1,2-Dichloroethane-d4		88.7 %	75	-125	**	"	"	"	
Surrogate: Toluene-d8		94.3 %		-125	•	"	*	,,	
Surrogate: 4-Bromofluorobenzene		97.7 %	7.5	-125	n	,,	"	,,	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/LA

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C3-5, P330cc (E902073-07) Vapor	Sampled: 24-Feb-09 Rece	ived: 24-Feb-	09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,,	**	**	w	*1	**	
Vinyl chloride	ND	0.10	"		**	**	**	**	
Chloroethane	ND	0.50	**	**	**	**	н		
Trichlorofluoromethane	ND	0.50	"	"	"	**	H	"	
1,1-Dichloroethene	ND	0.50	"	"	"	n	n	n	
Methylene chloride	ND	0.50	,	Ħ	#	11	."	"	
Freon 113	ND	0.50		"	11	••	n	. "	
trans-1,2-Dichloroethene	ND	0.50	"	19	н	n	n	**	
1,1-Dichloroethane	ND	0.50	,	"	,	n	"	"	
cis-1,2-Dichloroethene	ND	0.50		19	*	11	**	"	
Chloroform	ND	0.10	,,	**	*	**		"	
1,1,1-Trichloroethane	ND	0.50	,	"	*	"	**	"	
Carbon tetrachloride	ND	0.10	•	*	*	*		•	
1,2-Dichloroethane	ND	0.10	•	"		"	•	"	
Benzene	ND	0.10		"	**	*	**	*	
Trichloroethene	ND	0.10	**	**	**	•	•	*	
Toluene	ND	1.0	**	•	"	"	~	"	
1,1,2-Trichloroethane	ND	0.50	"	n	**		10	*	
Tetrachloroethene	0.42	0.10	**	•	**	n	**	*	
Ethylbenzene	ND	0.50		**	**	"	**	**	
1,1,1,2-Tetrachloroethane	ND	0.50		"	*	•	"	**	
m,p-Xylene	ND	0.50	**	**	"	n	n	•	
o-Xylene	ND	0.50	**	**	**	"	*	11	
1,1,2,2-Tetrachloroethane	ND	0.50		Jt	"	"		"	
Surrogate: Dibromofluoromethane		103 %		75-125	,,	,,	17	,,	
Surrogate: 1,2-Dichloroethane-d4		93.3 %		75-125 75-125	,,			,,	
Surrogate: Toluene-d8		94.2 %		75-125 75-125	,,	,,	*	,,	
Surrogate: 4-Bromofluorobenzene		98.8 %		75-125	"	*	*	"	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B3-15, P360cc (E902073-08) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	,,	n	"	W	**	"	
Vinyl chloride	ND	0.10	,,	*	,,	**	**	'n	
Chloroethane	ND	0.50	**	"	"	"	**	n	
Trichlorofluoromethane	ND	0.50	**	"	**	"	n		
1,1-Dichloroethene	ND	0.50		"	11	и	n	"	
Methylene chloride	ND	0.50		н	,,	H	**	"	
Freon 113	ND	0.50	"	"	11		n	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	**		n	"	
1,1-Dichloroethane	ND	0.50	,,	**	"		n	"	
cis-1,2-Dichloroethene	ND	0.50	**		н	"		"	
Chloroform	ND	0.10		11	Ħ	**		4	
1,1,1-Trichloroethane	ND	0.50	**	"	H	n	п	•	
Carbon tetrachloride	ND	0.10	**	•	*	Ħ	"	11	
1,2-Dichloroethane	ND	0.10	"		•	n	••	"	
Benzene	ND	0.10	19	n	**	*	**	"	
Trichloroethene	0.59	0.10	**	п	"		14	"	
Toluene	ND	1.0	**	,,	"	n	#	"	
1,1,2-Trichloroethane	ND	0.50	**	я			**	*	
Tetrachloroethene	14	0.10	n	*	,,	"	n	,,	
Ethylbenzene	ND	0.50		#	"	4	н	,	
1,1,1,2-Tetrachloroethane	ND	0.50	11	t*	"	0	**		
m,p-Xylene	ND	0.50		"	"		н		
o-Xylene	ND	0.50	**	11	"	"	**		
1,1,2,2-Tetrachloroethane	ND	0.50	"	h	**	#	Ħ	11	
Surrogate: Dibromofluoromethane		103 %	,	75-125	,,	**	,,	"	
Surrogate: 1,2-Dichloroethane-d4		94.2 %	,	75-125	**	"	"	"	
Surrogate: Toluene-d8		95.5 %	,	75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	,	75-125	*	"	"	"	



1000-A Ortega Way

Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright Reported: 02-Mar-09

Placentia, CA 92670

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B3-5, P330cc (E902073-09) Vapor	Sampled: 24-Feb-09 Rece	ived: 24-Feb-	09						-
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	**	**	**	**	0	
Vinyl chloride	ND	0.10	**	**	*	**	**	"	
Chloroethane	ND	0.50	**	"	II.	**	**	u	
Trichlorofluoromethane	ND	0.50	**	"	"	**	"	**	
1,1-Dichloroethene	ND	0.50		**	*	**	*1	"	
Methylene chloride	ND	0.50	**	"	**	"	"	*	
Freon 113	ND	0.50	"	*1	**	*		•	
trans-1,2-Dichloroethene	ND	0.50	"	**	**	"	•	*	
1,1-Dichloroethane	ND	0.50		**	*	*		**	
cis-1,2-Dichloroethene	ND	0.50	*	**	н	*	*	**	
Chloroform	ND	0.10	Ħ	**	"	•	"	n	
1,1,1-Trichloroethane	ND	0.50	11	"	n	*	n	**	
Carbon tetrachloride	ND	0.10	"	**	"	**	**	4	
1,2-Dichloroethane	ND	0.10	"	"	11	"	**	n	
Benzene	ND	0.10	11	"	*	*	"	*	
Trichloroethene	ND	0.10	н	"	*	"			
Toluene	ND	1.0	**	,	17	*	**	4	
1,1,2-Trichloroethane	ND	0.50	*		11	"		*	
Tetrachloroethene	0.34	0.10	17		**	"	**	n	
Ethylbenzene	ND	0.50	"	•	17		11	51	
1,1,1,2-Tetrachloroethane	ND	0.50	**		**	*	"	"	
m,p-Xylene	ND	0.50	11	*	*	11	**	"	
o-Xylene	ND	0.50	11	**	•	**	**	"	
1,1,2,2-Tetrachloroethane	ND	0.50	h		n	11	"	H	
Surrogate: Dibromofluoromethane		108 %	7	75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		93.2 %	7	75-125	**	"	*	,,	
Surrogate: Toluene-d8		97.1 %	7	75-125	*	"	•	,,	
Surrogate: 4-Bromofluorobenzene		98.6 %	7	75-125	"	"	"	*	



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C2-15, P360cc (E902073-10) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	սք/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	"	**	**	17		41	
Vinyl chloride	ND	0.10	"	**	**	¥	*	17	
Chloroethane	ND	0.50	"	87	**	11	"	**	
Trichlorofluoromethane	ND	0.50	"	**	**	¥	*	**	
1,1-Dichloroethene	ND	0.50	"	tt	**	n	n	"	
Methylene chloride	ND	0.50	п	**	**	11	n	"	
Freon 113	ND	0.50	"	**	**	u	"	"	
trans-1,2-Dichloroethene	ND	0.50	51	**	**	**	"	*	
1,1-Dichloroethane	ND	0.50	#1	No.	21	**	"	*	
cis-1,2-Dichloroethene	ND	0.50	"	**	**		n	"	
Chloroform	ND	0.10	**	"	**	"	*1	"	
1,1,1-Trichloroethane	ND	0.50	**	"	**	"	n	п	
Carbon tetrachloride	ND	0.10	*	n	**	"	*	n	
1,2-Dichloroethane	ND	0.10	"	Ħ	**	4	н	**	
Benzene	ND	0.10	н	n	"	•	**	н	
Trichloroethene	0.35	0.10	н	"	,	"	*	M	
Toluene	ND	1.0	19	n	*	•	**	н	
1,1,2-Trichloroethane	ND	0.50	11	п	#			н	
Tetrachloroethene	5.8	0.10	11	r	**		er	"	
Ethylbenzene	ND		**	et	**		,	м	
1,1,2-Tetrachloroethane	ND	0.50	"	"	11	e	0	м	
m,p-Xylene	ND	0.50	"	"	*	٠.,	D	"	
o-Xylene	ND		•	,,	"	*	**	и	
1,1,2,2-Tetraehloroethane	ND		"	P	**	"	†	H	
Surrogate: Dibromofluoromethane		108 %	7.	5-125	,,	,	,,	"	
Surrogate: 1,2-Dichloroethane-d4		94.9 %	7.	5-125	,,	*	,,	"	
Surrogate: Toluene-d8		98.5 %	7.	5-125	"	*	"	"	
Surrogate: 4-Bromosluorobenzene		102 %		5-125	"	,,	"	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C2-5, P330cc (E902073-11) Vapor	Sampled: 24-Feb-09 Rece	ived: 24-Feb-(09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	Ħ	, b	*	*	es	•	
Vinyl chloride	ND	0.10	,	4	**	**	11		
Chloroethane	ND	0.50	**	**	"	**	**	"	
Trichlorofluoromethane	ND	0.50	•		"	H	**	"	
1,1-Dichloroethene	ND	0.50	"	"	"	н	u	*	
Methylene chloride	ND	0.50	"	**	**	"	•	•	
Freon 113	ND	0.50	*	"	"	*		**	
trans-1,2-Dichloroethene	ND	0.50		**	**	**	*	•	
1,1-Dichloroethane	ND	0.50		*	**	n	•		
cis-1,2-Dichloroethene	ND	0.50		11	98	**	"	**	
Chloroform	ND	0.10		*1	**	tr	**	**	
1,1,1-Trichloroethane	ND	0.50	*	tt.	Ħ	H	n	*1	
Carbon tetrachloride	ND	0.10	**	n	#	11	11		
1,2-Dichloroethane	ND	0.10	"	**	"	•	"	**	
Benzene	ND	0.10	"	n	*	•	**	**	
Trichloroethene	ND	0.10	"	Ħ	*	"	*	"	
Toluene	ND	1.0	**	Ħ		"		*	
1,1,2-Trichloroethane	ND	0.50		н	*	•	10	и	
Tetrachloroethene	0.27	0.10	"	*	**	*	**	"	
Ethylbenzene	ND	0.50	н	**	Ħ	**	**	**	
1,1,2-Tetrachloroethane	ND	0.50	"	•	"	•	•	n .	
m,p-Xylene	ND	0.50		**	*			**	
o-Xylene	ND	0.50	**	н	*	"	**	**	
1,1,2,2-Tetrachloroethane	ND	0.50	"		n			,,	
Surrogate: Dibromofluoromethane		105 %	7	75-125	,	,,	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		92.9 %		75-125	,,	"	"	,,	
Surrogate: Toluene-d8		94.4 %		75-125	"	*	*	,,	
Surrogate: 4-Bromofluorobenzene		95.8 %		75-125	"	"	,,	*	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor		Prepared	Analyzed	Method	Notes
B2-15, P360cc (E902073-12) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09				-		
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichloroditluoromethane	ND	0.50	11	**	"	II .	n	49	
Vinyl chloride	ND	0.10	n	**	11	"	н	u	
Chloroethane	ND	0.50	**	**	11	"	11	ય	
Trichlorofluoromethane	ND	0.50	n	17	Ħ	11	n	11	
1,1-Dichloroethene	ND	0.50	**	ıı	**	Ħ	n	"	
Methylene chloride	ND	0.50		H	"	*	"	n	
Freon 113	ND	0.50	"	н	н	Ħ	11	"	
trans-1,2-Dichloroethene	ND		*	н	H	Ħ	19	u	
1,1-Dichloroethane	ND	0.50	14	н		11	n	0	
cis-1,2-Dichloroethene	ND	0.50		**	,,	11	11	0	
Chloroform	ND		,,		**	n	n	•	
1,1,1-Trichloroethane	ND	0.50	п	11	**	u	*	•	
Carbon tetrachloride	ND		11	**	ŧŧ	**	n	*1	
1,2-Dichloroethane	ND		11	ŧ	"	Ħ		N.	
Benzene	ND		"	Ħ	"	n	n	•	
Trichloroethene	0.36		11	n		n	,,	"	
Toluene	ND		P	11	Ħ	n	**	"	
1.1.2-Trichloroethane	ND		и	n	**	n	P	п	
Tetrachloroethene	12		11	n	**	**	**	"	
Ethylbenzene	ND		н	n	n	n		n	
1,1,2-TetrachIoroethane	ND	0.50	17	я	**	Ħ	•	"	
m,p-Xylene	NE		71	п	**	11		n	
o-Xylene	NE		**	**	"	**	**	D	
1,1,2,2-Tetrachloroethane	NE		"		11	11	#	"	
Surrogate: Dibromofluoromethane		110 %		75-125	,	и	p.	71	
Surrogate: 1,2-Dichloroethane-d4		92.7 %		75-125 75-125	,,	"	,,	"	
Surrogate: Toluene-d8		95.5 %		75-125 75-125	"	n	*	n	
Surrogate: 4-Bromofluorobenzene		93.5 % 106 %		75-125 75-125	n	,,	"	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Surroguie. 4-promojiuorovenzene		100 70		/ J-123					



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B2-5, P330cc (E902073-13) Vapor	Sampled: 24-Feb-09 Rece	ived: 24-Feb-	09			···			
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**		*	*	19	**	
Vinyl chloride	ND	0.10		**	*	n	4	"	
Chloroethane	ND	0.50	r		**	**	11	**	
Trichlorofluoromethane	ND	0.50	"	**	**	*	11	41	
1,1-Dichloroethene	NĎ	0.50	,,	**	*	11	*	**	
Methylene chloride	ND	0.50			,,	Ħ	н	**	
Freon 113	ND	0.50	ŧ1	*1	Ħ	n	**	11	
trans-1,2-Dichloroethene	ND	0.50	"	ŧı	"	н	"	4	
1,1-Dichloroethane	ND	0.50	*	**	н	n		"	
cis-1,2-Dichloroethene	ND	0.50	*	*	*	**	•	**	
Chloroform	ND	0.10	ŗ	*	*	H	,	**	
1,1.1-Trichloroethane	ND ·	0.50	,		,	*	n	*	
Carbon tetrachloride	ND	0.10	,,	**	,,		**		
1,2-Dichloroethane	ND	0.10	н	ŧ	**	**		**	
Benzene	0.11	0.10	H	п	*	•	**	"	
Trichloroethene	ND	0.10	**	•	**	**	*	n	
Toluene	ND	1.0			**		**	м	
1,1,2-Trichloroethane	ND	0.50	10	н	**	•	•	п	
Tetrachloroethene	0.47	0.10	**		**		**	"	
Ethylbenzene	ND	0.50		я	*	**	,		
1,1,2-Tetrachloroethane	ND	0.50	**	r	*	**	*	"	
m,p-Xylene	ND	0.50	\$6	*	**	*	**	,	
o-Xylene	ND	0.50	*	p.	Ħ	•	•	**	
1,1,2,2-Tetrachloroethane	ND	0.50	**	*	"	**	#	Р.	
C		107 %	7	'5-125	,,	"	n	n	
Surrogate: Dibromofluoromethane		91.8%		'5-125 '5-125			"	,,	
Surrogate: 1,2-Dichloroethane-d4					,,	,,	,,	,,	
Surrogate: Toluene-d8		95.5 %		5-125	,		"	,,	
Surrogate: 4-Bromofluorobenzene		104 %	/	5-125	-	~	~		



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C1-15, P360cc (E902073-14) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50	**	**	"	**		*	
Vinyl chloride	ND	0.10	"	"	"	*	H	"	
Chloroethane	ND	0.50	p	"	Ħ	**		"	
Trichlorofluoromethane	ND	0.50	"	"	#	"	"	**	
1,1-Dichloroethene	ND	0.50	"	**	#1	"	**	**	
Methylene chloride	ND	0.50		**	н	11		**	
Freon 113	ND	0.50	**	**	**	H	**	**	
trans-1,2-Dichloroethene	ND	0.50	"	**	#	Ħ	••	**	
1,1-Dichloroethane	ND	0.50	**	**	**	**	**	**	
cis-1,2-Dichloroethene	ND	0.50	**	4	*	**	**	"	
Chloroform	ND	0.10	**	n	**	**	"	**	
1,1,1-Trichloroethane	ND	0.50	#	11	"	17	"	"	
Carhon tetrachloride	ND	0.10	•	"	**	"	"	u	
1,2-Dichloroethane	ND	0.10	**	"	**	n	"	*	
Benzene	ND	0.10	**	"	n	**	"	н	
Trichloroethene	0.12	0.10	*	,	"	•		*	
Toluene	ND	1.0		,	"	"		R	
1,1,2-Trichloroethane	ND	0.50	,,		Ħ	*		n	
Tetrachloroethene	7.9	0.10	ų	,,	11	*		n	
Ethylbenzene	ND	0.50	"	"	11	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	**	#	"	"	"	
m,p-Xylene	ND	0.50		"	**	"	**		
o-Xylene	ND	0.50		*	n		*	,	
1,1,2,2-Tetrachloroethane	NE		*		**	"		,1	
Surrogate: Dibromofluoromethane		109 %	7	5-125	"	,,	,,	n	
Surrogate: 1,2-Dichloroethane-d4		95.4 %	7	5-125	"	"	,,	"	
Surrogate: Toluene-d8		96.5 %	7	5-125	*	,,	"	"	
Surrogate: 4-Bromosluorobenzene		106 %	7	5-125	#	"	"	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Resul	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
C1-5, P330cc (E902073-15) Vapor									
1,1-Difluoroethane (LCC)	. NE		ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	NE	0.50		*	19	**	*1	"	
Vinyl chloride	NE	0.10	**	n	**	**	**	*	
Chloroethane	NE	0.50		"	"	**	*	"	
Trichlorofluoromethane	NE	0.50	,	н	#	11	н	n	
1,1-Dichloroethene	NE	0.50	*	**	*	н	H	"	
Methylene chloride	NE	0.50	•	n	,	**	n	**	
Freon 113	NE		м	**	**	**	n	**	
trans-1,2-Dichloroethene	NE	0.50		"	*	**	11	**	
1,1-Dichloroethane	NE			tı tı		n	**	•	
cis-1.2-Dichloroethene	NE	0.50	**	*	**	**	**	44	
Chloroform	NE	0.10	,	19	11	**	v	*	
1,1,1-Trichloroethane	N		,,	*1	H	*	*	4	
Carbon tetrachloride	NE	0.10	,,	*1	*	•	n	**	
1,2-Dichloroethane	NE	0.10	p	•	"	*	n	•	
Benzene	NE	0.10	"	ţı.	10	*	*	*	
Trichloroethene	N		*	is	*	•	*		
Toluene	N			*	n				
1,1,2-Trichloroethane	N	0.50		**	4				
Tetrachloroethene	0.4		"	,	19		*		
Ethylbenzene	N			"	"			•	
1,1,2-Tetrachloroethane	NI	0.50	"	"	**	•		"	
m,p-Xylene	NI		"	**	"	**		"	
o-Xylene	N	0.50	**	"	**		*	"	
1,1,2,2-Tetrachloroethane	NI		H	p	**	H	**		
Surrogate: Dibromofluoromethane		102 %	,	75-125	,,	,	#	"	
Surrogate: 1,2-Dichloroethane-d4		88.7 %		75-125	"	*	,	"	
Surrogate: Toluene-d8		92.4 %		75-125	,	"	*	,,	
Surrogate: 4-Bromofluorobenzene		96.7%		75-125	"	"	**	"	



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B1-15, P360cc (E902073-16) Vapor	Sampled: 24-Feb-09	Received: 24-Feb	-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
Dichlorodifluoromethane	ND	0.50		**	"	"	*	*1	
Vinyl chloride	ND	0.10	**	49	*	"	"	"	
Chloroethane	ND	0.50	**	*	"	n	*	"	
Trichlorofluoromethane	ND	0.50	*	n	**	"	n	n	
1,1-Dichloroethene	ND	0.50	*	н	"	"	n	"	
Methylene chloride	ND	0.50	"	"	**	и	11	"	
Freon 113	ND		•	u	*	**	n	"	
trans-1,2-Dichloroethene	ND	0.50		11	"	*	11	"	
1,1-Dichloroethane	ND	0.50			**	"	n	n	
cis-1,2-Dichloroethene	ND			**	**	11	н	"	
Chloroform	ND		**	**	*	11	n	"	
1,1,1-Trichloroethane	ND	0.50	*	"	*	n	**	"	
Carbon tetrachloride	ND	0.10	•	11	"	н	"	"	
1,2-Dichloroethane	ND	0.10	,,	•	"	**	"	•	
Benzene	ND		"	#	"	•	"	"	
Trichloroethene	0.15			**	"	"	p	•	
Toluene	ND		•	**	**	n	**		
1,1,2-Trichloroethane	ND		,,		**	•		"	
Tetrachloroethene	6.6					•	•	*	
Ethylbenzene	ND		*	"	11		**	*	
1,1,1,2-Tetrachloroethane	ND		**	n	"	•	*	н	
m,p-Xylene	ND		"	**	"	"	н	"	
o-Xylene	ND		**	p	*1	,,		,	
1,1,2,2-Tetrachloroethane	ND		11	"	11	#			
Surrogate: Dibromofluoromethane		114%	75	-125	,,	"	,,	"	
Surrogate: 1,2-Dichloroethane-d4		99.7 %	75	-125	,,	•	n	"	
Surrogate: Toluene-d8		102 %	75	-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118%	75	-125	"	"	"	p	



Project: EAU022309-SB1/L4

1000-A Ortega Way

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Placentia, CA 92670

Volatile Organic Compounds by EPA Method 8260B

Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Sampled: 24-Feb-09 Rece	ived: 24-Feb-	09						
ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	
			"	11	"	"	**	
ND	0.10	**	"	**	•	**	**	
ND	0.50	n	*	Ħ	"	*1	**	
ND	0.50	"	"	"	**	n	"	
ND	0.50	*	"	"	**	"	**	
ND	0.50		"	*	*	"	"	
ND	0.50	"	"	н	**	**	**	
ND	0.50	**	"	*	4	"	**	
ND	0.50	*	"	,,	"		*	
ND	0.50	Р	*	**			44	
ND	0.10	"	*	**	*		tt	
ND	0.50	įr.	*	"	"	**	"	
ND	0.10	"	"	н	*	•	, ч	
ND	0.10	**	*1	*	*	•	*	
ND	0.10	**	*	n	"	•	"	
ND	0.10	**	"	"	4		*	
ND	1.0	11	,,	**	**	**	*	
ND	0.50	**	"	**	*	,,	"	
0.18	0.10	**	"	н	*	**	#	
ND	0.50		"	*	**	**	*	
ND	0.50	11	,	n	•	**	n	
ND	0.50	**	•	Ħ	**	"	Ħ	
ND	0.50	"	11	n	**		#	
ND	0.50	н			"			
	103 %	7	75-125	"	"	"	#	
	92.1 %					"	"	
				*		"	,,	
	105 %			'n	"	•	n	
	Sampled: 24-Feb-09 Rece ND ND ND ND ND ND ND ND ND ND ND ND ND	Result Limit	NE Limit Units	Result Limit Units Factor	Result Limit Units Factor Batch	Result Limit Units Factor Batch Prepared	Result Limit Units Factor Batch Prepared Analyzed	ND



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B1-5 Dup, P380cc (E902073-18) Vapor	Sampled: 24-Feb-09	Received: 24-	Feb-09						
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EB92401	24-Feb-09	24-Feb-09	EPA 8260B	***************************************
Dichlorodifluoromethane	ND	0.50	"	**	**	"	*	*	
Vinyl chloride	ND	0.10	"		"	**	**	"	
Chloroethane	ND	0.50	,,	**	11	**	*	"	
Trichlorofluoromethane	ND	0.50	"	"	**	**	"	"	
1,1-Dichloroethene	ND	0.50	"	**	"		"	11	
Methylene chloride	ND	0.50	"	łı	**	н	**	n	
Freon 113	ND	0.50	,,	•	*	"	•	"	
trans-1,2-Dichloroethene	ND	0.50	"	41	"	*1	*1	*	
1,1-Dichloroethane	ND	0.50	,	**	"	**	79	ų	
cis-1,2-Dichloroethene	ND	0.50	"	**	**	**	**	n	
Chloroform	ND	0.10	"	eq	"	**	**	**	
1,1,1-Trichloroethane	ND	0.50	"	ħ	,,	11	**	"	
Carbon tetrachloride	ND	0.10	"	**	"	Ħ	**	ŧı	
1,2-Dichloroethane	ND	0.10	"	н	"	n	**	"	
Benzene	ND	0.10	"	**	"	"	**	**	
Trichloroethene	ND	0.10	"	H	"	"	10	"	
Toluene	ND	1.0	"	#		•	**	*	
1,1,2-Trichloroethane	ND	0.50		n	Ħ	**	"	*	
Tetrachloroethene	0.10	0.10	19	m	11		**	*	
Ethylbenzene	ND	0.50	*	n	v	**	**	n	
1,1,1,2-Tetrachloroethane	ND	0.50	"	n	n	•	n	*	
m,p-Xylene	ND	0.50	"	**	"	n	**	A	
o-Xylene	ND	0.50	*	11	**	**	**	м	
1,1,2,2-Tetrachloroethane	ND	0.50	"	11	**	,,	**	**	
Surrogate: Dibromofluoromethane		110 %		75-125	,	,,	r	"	The second spectrum del spectrum
		99.7 %		75-125 75-125	,,	,,	,,	,,	
Surrogate: 1,2-Dichloroethane-d4		99.7 % 99.1 %		75-125 75-125	,,	,,	,,	,,	
Surrogate: Toluene-d8					,,	,,	,,	,,	
Surrogate: 4-Bromofluorobenzene		114%		75-125	"	"	**	"	



Project: EAU022309-SB1/L4

Spike

Source

1000-A Ortega Way

Project Number: 1576 / 11700 Burke St.

Reported: 02-Mar-09

RPD

%REC

Placentia, CA 92670

Project Manager: Mr. Steve Bright

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry

Reporting

Analyte	Result	Reporting Limit	Units	Level	Source Result	%REC	%REC Limits	RPD	Limit	Notes
Batch EB92301 - EPA 5030										
Blank (EB92301-BLK1)				Prepared &	Analyzed:	23-Feb-09			·····	
1.1-Difluoroethane (LCC)	ND	10	ug/l						***************************************	***************************************
Dichlorodifluoromethane	ND	0.50	*							
√inyl chloride	ND	0.10	n							
Chloroethane	ND	0.50	n							
Frichlorofluoromethane	ND	0.50	"							
,1-Dichloroethene	ND	0.50	**							
Methylene chloride	ND	0.50	*							
Freon 113	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	**							
1,1-Dichloroethane	ND	0.50	11							
cis-1,2-Dichloroethene	ND	0.50	"							
Chloroform	ND	0.10	,							
,1,1-Trichloroethane	ND	0.50	**							
Carbon tetrachloride	ND	0.10	"							
1,2-Dichloroethane	ND	0.10	*							
Benzene	ND	0.10	H							
Trichloroethene	ND	0.10	11							
Toluene	ND	1.0	,,							
1,1,2-Trichloroethane	ND	0.50	**							
Tetrachloroethene	ND	0.10	u							
Ethylbenzene	ND	0.50	"							
1,1,2-Tetrachloroethane	ND	0.50	"							
m,p-Xylene	ND	0.50	•							
o-Xylene	ND	0.50	•							
1,1.2,2-Tetrachloroethane	ND	0.50	"		1 0 10 10 10 10 10 10 10 10 10 10 10 10 10			****	·	
Surrogate: Dibromofluoromethane	2.59		tr	2.50		104	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.18		*	2.50		87.4	75-125			
Surrogate: Toluene-d8	2.40		"	2.50		95.8	75-125			
Surrogate: 4-Bromofluorobenzene	2.55		"	2.50		102	75-125			



1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St. Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Volatile Organic Compounds by EPA Method 8260B - Quality Control

посг	Monne	Geochemistry	

Aughsta	Paggle	Reporting	Limite	Spike	Source	94DEC	%REC	D DT	RPD	Massa
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB92302 - EPA 5030										
Blank (EB92302-BLK1)	MARAJAN NA SAO - A T T T T THE REAL BASE SAIL SAIL SAN THE SAN THE		***************************************	Prepared &	Analyzed:	23-Feb-09		****	*************	
I.I-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.50	*							
Vinyl chloride	ND	0.10	n							
Chloroethane	ND	0.50	**							
Trichlorofluoromethane	ND	0.50	11							
1,1-Dichloroethene	ND	0.50	,.							
Methylene chloride	ND	0.50	"							
Freon 113	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	Ħ							
cis-1,2-Dichloroethene	ND	0.50	"							
Chloroform	ND	0.10	"							
1,1,1-Trichloroethane	ND	0.50	"							
Carbon tetrachloride	ND	0.10	"							
1,2-Dichloroethane	ND	0.10								
Benzene	ND	0.10	n							
Trichloroethene	ND	0.10	*							
Toluene	ND	1.0								
1,1,2-Trichloroethane	ND	0.50	**							
Tetrachloroethene	ND	0.10	n							
Ethylbenzene	ND	0.50	**							
1,1,1,2-Tetrachloroethane	ND	0.50	**							
m,p-Xylene	ND	0.50	*							
o-Xylene	ND	0.50	"							
1,1.2,2-Tetrachloroethane	ND	0.50	"							
Surrogate: Dibromofluoromethane	2.06		"	2.50	The state of the s	82.4	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.03		"	2.50		81.3	75-125			
Surrogate: Toluene-d8	2.36		"	2.50		94.3	75-125			
Surrogate: 4-Bromofluorobenzene	2.45		,,	2.50		97.9	75-125			



mental Audit

1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Spike

Source

Project Number: 1576 / 11700 Burke St.

Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

RPD

%REC

Volatile Organic Compounds by EPA Method 8260B - Quality Control H&P Mobile Geochemistry

Reporting

		Reporting		Spike	Source		FOREC.		KrD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB92401 - EPA 5030										
Blank (EB92401-BLK1)	Prepared & Analyzed: 24-Feb-09									
1.1-Diffuoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.50	•							
vinyl chloride	ND	0.10	*1							
Chloroethane	ND	0.50	11							
richlorofluoromethane	ND	0.50	17							
,1-Dichloroethene	ND	0.50	"							
Methylene chloride	ND	0.50	*							
Freon 113	ND	0.50	n							
rans-1,2-Dichloroethene	ND	0.50	н							
1,1-Dichloroethane	ND	0.50	**							
cis-1,2-Dichloroethene	ND	0.50	**							
Chloroform	ND	0.10	**							
1,1,1-Trichloroethane	ND	0.50	*							
Carbon tetrachloride	ND	0.10	ч							
1,2-Dichloroethane	ND	0.10	H							
Benzene	ND	0.10	**							
Trichloroethene	ND	0.10	P							
Toluene	ND	1.0	n							
1,1,2-Trichloroethane	ND	0.50	н							
Tetrachloroethene	ND	0.10	n							
Ethylbenzene	ND	0.50	,,							
1,1,1,2-Tetrachloroethane	ND	0.50	17							
ın,p-Xylene	ND	0.50	**							
o-Xylene	ND	0.50	"							
1,1.2,2-Tetrachloroethane	ND	0.50	"				·			
Surrogate: Dibromofluoromethane	2.55		**	2.50		102	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.20		"	2.50		87.9	75-125			
Surrogate: Toluene-d8	2.47		*	2.50		98.9	75-125			
Surrogate: 4-Bromofluorobenzene	2.80		n	2.50		112	75-125			



Environmental Audit 1000-A Ortega Way Placentia, CA 92670 Project: EAU022309-SB1/L4

Project Number: 1576 / 11700 Burke St.
Project Manager: Mr. Steve Bright

Reported: 02-Mar-09

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

APPENDIX C

H&Ps Soil Vapor Standard Operating Procedures Fulfilling CA-EPA (DTSC) Soil Gas Advisory, Revision 4, January 2007



Soil Vapor Standard Operating Procedures Fulfilling CA-EPA (DTSC) Soil Gas Advisory

Revision 4

January 2007

Prepared by:

H&P Mobile Geochemistry

Carlsbad, California

Soil Gas Sampling Procedures

Probe Construction and Insertion

Manually-Driven Probes

H&P's manually driven soil vapor probes are constructed of 0.625 inch outside diameter steel and equipped with a hardened steel tip. The probes can reach a depth of 5 feet below ground surface. An inert 1/8 inch nylaflow tube is threaded down the center of the probe and connected to a sampling port just above the tip. This internal sample tubing design eliminates any contact between the sample port and the gas sample.

The probe is driven into the ground by an electric rotary hammer. Once inserted to the desired depth, the probe is rotated approximately 3 turns to open the tip and exposes the vapor sampling ports. This design prevents clogging of the sampling ports and cross-contamination from soils during insertion.

Hydraulically-Driven Probes

H&P's hydraulically-driven soil vapor probes are constructed of either 1.25 or 1.5 inch outside diameter steel and equipped with a hardened drop-off steel tip. The probes are nominally 4 feet long and threaded together to reach multiple depths. The probe is driven into the subsurface with H&P's STRATAPROBE™ direct-push system. Once inserted to the desired depth, the probe is retracted slightly to expose the vapor sampling port. A small diameter inert tubing is then inserted through the center of the rod and threaded into a gas tight fitting just above the tip. After a sample is obtained the tubing is removed and the probe rod advanced to the next sampling depth or removed. This design prevents clogging of the sampling port and cross-contamination from soils during insertion.

Surface Seals

The probe rod is sealed at the surface with granular and hydrated bentonite for a minimum of 20 minutes before sampling.

Soil Gas Sampling

Soil vapor is withdrawn from the end of the inert nylaflow tubing that runs from the sampling tip to the surface using a 20 to 60 cubic centimeter (cc) syringe or gas tight canister (Summa) connected via an on-off valve (see diagram). The probe tip and sampling tubing is nominally purged of three to five internal dead volumes, or based upon a pre-determined purge volume established by a purge volume test described below. A sample of in-situ soil vapor is then withdrawn and immediately transferred to the mobile lab for analysis within minutes of collection. The use of small calibrated syringes allowed for careful monitoring of purge and sample volumes. This procedure ensures adequate sample flow is obtained without excessive pumping of air or introduction of surface air into the sample.

For off-site analysis, samples are collected in canisters or in tedlar bags when allowed. Samples collected in tedlar bags for VOC analysis are either analyzed on the same day or transferred to a canister.

Purge Volume Test

If required, a site specific purge volume test is conducted at the beginning of the soil gas survey to purge ambient air from the sampling system. Three different volumes are sampled (nominally 1, 3, 7 purge volumes) and analyzed immediately to determine the volume amount with the highest concentration. Therefore, the optimum purge volume is achieved and used during the entire site investigation.

Use of Tracer Compound to Ensure Probe Seal Integrity

A tracer compound, typically difluoroethane, iso-propanol, or butane, is used to test for leaks around the probe barrel at the ground surface and in the sampling system. The tracer is placed around the base of the probe barrel and at the top of the probe barrel during sample collection. If the tracer is detected per CA-EPA advisory specifications, another sample is collected.

Sample Flow Rate

Sample collection is timed so that the flow rate does not exceed 200 ml/per minute. This is accomplished by withdrawing the plunger on the 60 cc syringe at a constant rate for 20 seconds. The collector notes the collection time on a logsheet, and also records any resistance to sample flow that is felt on the syringe during collection.

Summa Canister

Summa canisters are connected to the end of the nylaflow tubing to the same three way valve used with the syringe. A choke is placed on the canister to ensure that the flow rate is no more than 200 ml/ per minute into the summa canister.

Field Records

The field technician maintains a logsheet summarizing:

- Sample identification
- Probe location
- · Date and time of sample collection
- · Sampling depth
- Identity of samplers
- · Weather conditions
- · Sampling methods and devices
- Soil gas purge volumes
- Volume of soil gas extracted
- Observation of soil or subsurface characteristics (any condition that affects sample integrity)
- Apparent moisture content (dry, moist or saturated etc.) of the sampling zone
- Chain of custody protocols and records used to track samples from sampling point to analysis.

Analytical Methodology

The following analytical protocols fulfills the both the CA-EPA advisory (2003) and LA-RWQCB soil gas analytical guidelines (1997).

Operating Conditions and Instrumentation

Volatile Organic Compounds (VOCs) by EPA 8260

Instrument: Hewlett-Packard 6890(6850)/5973 or 5890/5972 GCMS

Column: 25 meter HP-624, 0.20mm x 1.0u. capillary.

Carrier flow: Helium at 1.0 ml/min.

Detectors: Quadrupole MS, full scan mode **Concentrator**: Tekmar 3000/Solatek 72

Volatile Organic Compounds (VOCs) by EPA TO-14 or TO-15

Instrument: Hewlett-Packard 6850/5973

Column: 60 meter HP-624, 0.32mm x 1.8u. capillary.

Carrier flow: Helium at 3.0 ml/min.

Detectors: Quadrupole MS, full scan mode

TO-14 Instrumentation: Entech 7100 Air Concentrator/Entech 7300

Autosampler

Fixed and Biogenic Gases (O2, CO2, & Methane)

Instrument: SRI 8610 or Carle AGC 311 Gas Chromatograph

Column: 6 foot CTR

Carrier flow: Helium at 15 ml/min.

Detectors: Thermoconductivity (TCD) for O2 & CO2. **Detectors:** Flame ionization detector (FID) for methane.

Hydrogen Sulfide

Instrument: Jerome 631x Detectors: Gold-film

Standard Preparation

Primary (stock) standards: Made from certified neat components or from traceable standards purchased from certified suppliers.

Secondary (working) Standards: Made by diluting primary standard. Typical concentrations are 1ug/ml, 10 ug/ml, and 50 ug/ml.

Laboratory Check Samples are prepared at the midpoint concentration from a standard purchased from a source different than the primary standards.

Lot numbers and preparations of all standards are recorded on a log sheet and kept in the mobile laboratory.

Gas Standards for TO-14A/15 analysis purchased from Spectra Gases, Branchburg, N.J. diluted from 1.0 ppmv to 10ppbv (for targets) and 1.0ppmv to 100ppbv (internal standards and surrogates

Initial Multi-Point Calibration Curve

An initial calibration curve of a minimum of 3 points is performed either:

- At the start of the project.
- When the GC column or operating conditions have changed
- When the daily mid-point calibration check cannot meet the requirements as specified below.
- For TO-15 a five point calibration is used.

Calibration curves for each target component are prepared by analyzing low, mid, and high calibration standards covering the expected concentration range. The lowest standard concentration will not exceed 5 times the reporting limit for each compound.

A linearity check of the calibration curve for each compound is performed by computing a correlation coefficient and an average response factor. If a correlation coefficient of 0.990 or a percent relative standard deviation (%RSD) of \pm 15% is obtained, an average response factor is used over the entire calibration range. If the linearity criteria are not obtained, quantitation for that analyte is performed using a calibration curve.

After each initial multi-point calibration, the validity of the curve is further verified with a laboratory control standards (LCS) prepared at the mid-point of the calibration range. The LCS includes all target compounds and the response factor (RF) must fall within \pm 20% of the factor from the initial calibration curve.

Continuing Calibration (Daily Mid-point Calibration Check)

Continuing calibration standards prepared from a traceable source are analyzed at the beginning of each day. Acceptable continuing calibration agreement is set at \pm 20% to the average response factor from the calibration curve, except for freon, chloroethane, and vinyl chloride when a 25% agreement is required. When calibration checks fall outside this acceptable range for analytes detected on the site, corrective action, consisting of verification of the standard and/or a new calibration curve for the analytes out of specifications is performed by the on-site chemist.

The continuing calibration includes all compounds expected or detected at the site in addition to any specific compounds designated in the project workplan.

Detection Limits

Reporting limits for this program are defined as 5 times lower than the lowest concentration standard of the calibration curve, as follows:

Compound	Detector	Report Limit			
VOCs by TO-14A/15	Mass Spec	1.0 to 5 ppbv			
VOCs	Mass Spec	0.1 to 1 ug/l-vapor			
Methane	FID	10 ppmv			
Fixed Gases	TCD	0.1% by vol			
H2S	Gold Film	0.10 ppmv			

Injection of Soil Gas Samples

Vapor samples are withdrawn from the probe sampling syringe with a 5 cc syringe and injected with surrogates into a purge & trap instrument for VOC analysis. Separate aliquots are directly injected into gas chromatographs for fixed gases and methane analysis. The injection syringe is flushed 2 times with the sample prior to injection. Injection syringes are flushed several times with clean air or discarded between injections.

TO-14A/15 samples are taken into Summa or similar passivated canisters. Holding time for these canisters is 30 days.

Laboratory Data Logs

The field chemist maintains injection and sample analysis records including date and time of analysis, sampler's name, chemist's name, sample ID number, concentrations of compounds detected, calibration data, and any unusual conditions.

Quality Control Procedures

Compliance With Standards

Sampling and analytical procedures complied with the American Society for Testing and Materials' Standard Guide for Soil Gas Monitoring in the Vadose Zone (ASTM D5314-93), the LA-RWQCB Soil Gas Guidelines (Feb 1997 version), and the San Diego County SAM Soil Gas Guidelines (October, 2001).

Sampling Quality Control

Method Blanks

Prior to sampling each day, all components of the sampling system are checked for contamination by drawing ambient air from above ground through the sampling equipment, and injecting a sample into a gas chromatograph. The analysis results are compared to that of the ambient air and recorded in the data tables as blanks.

Sample Quality Control

Each sample is given a unique identification number specifying location and depth. Purge and sample volumes are monitored closely using small calibrated syringes to assure a proper flow of soil gas. This ensures a representative sample is obtained from the sample zone without excessive pumping, which could result in sampling of surface air.

<u>Decontamination Procedures</u>

To minimize the potential for cross-contamination between sites, all external soil vapor probe parts are wiped or washed cleaned of excess dirt and moisture with solvents or de-ionized water as appropriate. The probe's internal nylaflow tubing is purged with clean air between sampling locations or replaced as necessary. Sampling syringes are flushed with clean air after each use or replaced.

Corrective Action

Corrective action is taken when unexpected contaminant levels are detected. First duplicate samples are taken to verify the initial detection of petroleum hydrocarbons. If contamination is suspected, then the sample probes are disassembled, wiped cleaned of excess dirt and moisture, rinsed with deionized water, washed with Alconox and water, and rinsed again with

deionized water. The sample tubing in the probe is replaced. Contaminated sampling syringes are discarded.

Analytical Quality Control

Method Blanks

Method blanks are performed at the start of each day by drawing clean air through the sampling equipment and analyzing. These blanks verify all components of the sampling and analytical system are free of contamination. Additional blanks are performed more often as appropriate depending upon the measured concentrations, at a minimum 1 every 20 samples. The results of all blank analyses are recorded in the data tables. If a blank shows a measurable amount of any target compound, the on-site chemist will investigate and determine the source, and resolve the contamination problem prior to analyzing any samples.

Duplicate Samples

Duplicate (repetitive) analysis of a sample is performed when inconsistent data are observed, but at least one every 20 samples. Because soil vapor duplicates can vary widely, nominal relative percent difference (RPD) acceptance criteria is \pm a factor of 2.

Continuing Calibration (Daily Mid-point Calibration Check)

As described on page 5 of this document, continuing calibration standards prepared from a traceable source are analyzed at the beginning of each day.

The continuing calibration includes all compounds expected or detected at the site and any specific compounds designated in the project workplan.

Laboratory Check Samples (LCS)

Laboratory check samples, prepared at the lowpoint concentration from a standard purchased from a source different than the calibration standards, are analyzed at the end of each day if all samples are below detection. Acceptance criteria is ± 20% from the true value. If the LCS falls outside this acceptance range for analytes detected on site, corrective action, consisting of verification of the standard and/or a new calibration curve for the analytes out of specifications, is performed.

APPENDIX D

95% UCL Arsenic (Soil) and PCE (Soil Gas) Calculations

General UCL	Statistics for	Data Sets with Non-Detects

User Selected Options

From File N:\1576\As\1576As.wst

Full Precision

Confidence Coefficient

Number of Bootstrap Operations

As in soil (mg/kg), 11630-11700 Burke Street, Santa Fe Springs, CA 90670 (ARSENIC)

General	Statistics
---------	------------

Number of Valid Samples	39	Number of Detected Data	19
Number of Unique Samples	18	Number of Non-Detect Data	20
		Percent Non-Detects	51.28%

Raw Statistics	aw Statistics Log-transformed Statistics		
Minimum Detected	0.87	Minimum Detected	-0.139
Maximum Detected	55	Maximum Detected	4.007
Mean of Detected	16.73	Mean of Detected	2.094
SD of Detected	19	SD of Detected	1.282
Minimum Non-Detect	0.3	Minimum Non-Detect	-1.204
Maximum Non-Detect	5	Maximum Non-Detect	1.609

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect	30
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected	9
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage	76.92%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Onl	y
Shapiro Wilk Test Statistic	0.754	Shapiro Wilk Test Statistic	0.889
5% Shapiro Wilk Critical Value	0.901	5% Shapiro Wilk Critical Value	0.901
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	1
Mean	8.846	Mean	0.867
SD	15.24	SD	1.774
95% DL/2 (t) UCL	12.96	95% H-Stat (DL/2) UCL	18.84
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	0.764
		SD in Log Scale	1.755
		Mean in Original Scale	8.666
	:	SD in Original Scale	15.33
		95% Percentile Bootstrap UCL	12.94
		95% BCA Bootstrap UCL	13.95

Gamma	Distribution	Test with	Detected	Values Only	

k star (bias corrected) 0.724

> 23.1 Theta Star

> > nu star 27.52

Data Distribution Test with Detected Values Only Data do not follow a Discemable Distribution (0.05)

,			
	Nonparametric Statistics	1.391	A-D Test Statistic
xd	Kaplan-Meier (KM) Method	0.776	5% A-D Critical Value
an	Mean	0.776	K-S Test Statistic
D	SD	0.206	5% K-S Critical Value
∍n	SE of Mean	al	Data not Gamma Distributed at 5% Significance Leve
L	95% KM (t) UCL		
CL	95% KM (z) UCL		Assuming Gamma Distribution
CL	95% KM (jackknife) UCL		Gamma ROS Statistics using Extrapolated Data
CL	95% KM (bootstrap t) UCL	0.87	Minimum
CL	95% KM (BCA) UCL	55	Maximum
CL	95% KM (Percentile Bootstrap) UCL	16.65	Mean
CL	95% KM (Chebyshev) UCL	16.04	Median
CL	97.5% KM (Chebyshev) UCL	13.1	SD
CL	99% KM (Chebyshev) UCL	1.459	k star
		11.42	Theta star
	Potential UCLs to Use	113.8	Nu star
CL	95% KM (BCA) UCL	90.14	AppChi2
		21.02	95% Gamma Approximate UCL
		21.21	95% Adjusted Gamma UCL

ı

General	UCL	Statistics	for	Full	Data	Sets

User Selected Options

From File N:\1576\SG-Risk\PCE95UCL.wst

95% Adjusted Gamma UCL

8.272

Full Precision OFF

Confidence Coefficient 95%

Number of Bootstrap Operations 2000

PCE in soil gas (ug/l), 11630-11700 Burke Street, Santa Fe Springs, CA 90670 (Perchloroethylene)

	General Sta	No. at an	
Number of Volid Compley			
Number of Valid Samples	28	Number of Unique Samples	25
Raw Statistics		Log-transformed Statistics	
Minimum	0.24	Minimum of Log Data	-1.427
Maximum	17	Maximum of Log Data	2.833
Mean	6.076	Mean of log Data	1.43
Median	5.6	SD of log Data	1.038
SD	4.532		
Coefficient of Variation	0.746		~
Skewness	0.942		
	televant UCL	Statistics	
Normal Distribution Test	OOVAIN OOL	Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.915	Shapiro Wilk Test Statistic	0.909
Shapiro Wilk Critical Value	0.924	Shapiro Wilk Critical Value	0.924
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	7.534	95% H-UCL	11.84
95% UCLs (Adjusted for Skewness)	7.001	95% Chebyshev (MVUE) UCL	13.84
95% Adjusted-CLT UCL	7.647	97.5% Chebyshev (MVUE) UCL	16.81
95% Modified-t UCL	7.56	99% Chebyshev (MVUE) UCL	22.65
Gamma Distribution Test		Data Distribution	
k star (bias corrected)	1.346	Data appear Gamma Distributed at 5% Significance I	_evel
Theta Star,	4.513		
nu star	75.39	-	
Approximate Chi Square Value (.05)	56.39	Nonparametric Statistics	
Adjusted Level of Significance	0.0404	95% CLT UCL	7.484
Adjusted Chi Square Value	55.37	95% Jackknife UCL	7.534
A control of the second of the		95% Standard Bootstrap UCL	7.444
Anderson-Darling Test Statistic	0.301	95% Bootstrap-t UCL	7.701
Anderson-Darling 5% Critical Value	0.763	95% Hall's Bootstrap UCL	7.637
Kolmogorov-Smirnov Test Statistic	0.103	95% Percentile Bootstrap UCL	7.539
Kolmogorov-Smirnov 5% Critical Value	0.1 6 8	95% BCA Bootstrap UCL	7.61 6
Data appear Gamma Distributed at 5% Significance	Level	95% Chebyshev(Mean, Sd) UCL	9.809
and the second s		97.5% Chebyshev(Mean, Sd) UCL	11.42
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	14.6
95% Approximate Gamma UCL	8.123		

8.123

APPENDIX E DTSC SG-Screen Model Data

SUMMARY OF SITE ASSESSMENTS 11630-11700 Burke Street, Santa Fe Springs, CA 90670	
	SOIL GAS DATA FROM 5 FEET
	EAI Project No. 1576

				C	ATA ENTR	YSHEET	
SG-SCREEN Version 2.0; 04/		Soil	Gas Concentratio	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER Soil	Odd Od Roman	ENTER Soil		(last modified 1/21/05)	
Defaults	Chemical	gas	OR	gas			1576B@
	CAS No.	conc.,		conc.,			
	(numbers only,	C		C"			
	no dashes)	(μg/m³)		(ppmv)		Chemical	
	71432	2.60E+02				Benzene	
	ENTED	ENTER	ENTER	ENTER		ENTER	
	ENTER Depth	ENIER	ENIER	ENTER		ENIER	
MORE	below grade	Soil gas		Vadose zone		User-defined	
.	to bottom	sampling	Average	scs		vadose zone	
	of enclosed	depth	soil	soil type		soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,	
	Ĺ _F	L,	T_{S}	soil vapor		k, i	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	15	152.4	24				
	Enter correct SCS	soil type, or user-de	efined permeability	ENTER		ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor	
₩	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)	
	Lookup Soil	ρb ^A	n ^v	θ ,, ν		Q _{sof}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)	
		1.5	0.43	0.15		5	
MORE							
₩ORE ↓	ENTER Averaging	ENTER Averaging	ENTER	ENTER			
	time for	time for	Exposure	Exposure			
	carcinogens,	noncarcinogens,	duration,	frequency,			
	ATc	ATNC	ED	EF			
	(yrs)	(yrs)	(yrs)	(days/yr)			
	70	30	30	350			
		·					

DTS

1576B@5'_R 3/5/2009 6:42 AM

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
2.9E-06	7.7E-03

MESSAGE SUMMARY BELOW:

					DATA ENTRY	SHEET		
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	e	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576B@5'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C _p		C _a				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
			•					
	71432	2.60E+02	L			Benzene		
	ENTER	ENTER	ENTER	ENTER		ENTER		
	Depth							
MORE	below grade	Soil gas		Vadose zone		User-defined		
—	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type	OR	soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L _s	T _s	soil vapor		k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15 .	152.4	24					
	15 .	152.4	24					
	Enter correct SCS	soil type, or user-de	fined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
+	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	ρ _δ *	n ^v	θ,,,		Q_{soi}		
	Parameters	(g/cm³)	(unitless)	(cm ³ /cm ³)		(L/m)		
	f	1.5	0.43	0.15		5		
		1.5	0.43	0.15		3		
C trops								
MORE	ENTER	ENTER	ENTER	ENTER				5
	Averaging	Averaging	ENTER	ENIER				
	time for	time for	Exposure	Exposure				51P/I
	carcinogens,	noncarcinogens,	duration,	frequency,				62
	ATc	ATNC	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
4.6E-03

MESSAGE SUMMARY BELOW:

					MINENIKI	SHEET		
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidano Interim Final 12/04	e	
Reset to	ENTER	ENTER Soil	Odo Gorioo Rigino	ENTER Soil		(last modified 1/21/05)		
Defaults	Chemical CAS No. (numbers only,	gas conc., C _a	OR	gas conc., C _s				1576T@5'-R
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	Tio dashes)	(H.g.)		(ppitty)		Onemida		
	108883	5.70E+01				Toluene		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
*	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L,	Ts	soil vapor		K _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24	ļ				
	Enter correct SCS	soil type, or user-de	fined permeability	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
•	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density.	porosity, n [∨]	porosity,		(Leave blank to calculate)		
	Lookup Soil Parameters	ρ, ^ 3		θ,,,,		Q _{soil}		
		(g/cm³)	(unitless)	(cm ³ /cm ³)		(L/m)		
		1.5	0.43	0.15		5		
MORE	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	CHIEN	EHILL				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	ATNC	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30 I	20 1	350				
	70	30	30	350				

DTSC / HERD Last Update: 11/1/03

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
1.7E-04

MESSAGE SUMMARY BELOW:

					AIA ENIKI	0.122.	
G-SCREEN ersion 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil	OGO GONIOGINI GUGO.	ENTER Soil		(last modified 1/21/05)	
Delaults	Chemical CAS No.	gas conc.,	OR	gas conc.,			1576T
	(numbers only, no dashes)	C _α (μg/m³)		C _g (ppmv)		Chemical	
	108883	5.70E+01				Toluene	
	ENTER	ENTER	ENTER	ENTER		ENTER	
MORE	Depth below grade	Soil gas		Vadose zone		User-defined	
	to bottom	sampling	Average	scs		vadose zone	
	of enclosed space floor,	depth below grade,	soil temperature,	soil type (used to estimate	OR	soil vapor permeability,	
	L _F	L,	T _s	soil vapor	0.1	k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)	
	15	152.4	24				
	Enter correct SCS	soil type, or user-de	fined permeability				
	Enter correct SCS	soil type, or user-de	fined permeability	ENTER		ENTER	
MORE	ENTER Vandose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone		Average vapor	
MORE +	ENTER Vandose zone SCS	ENTER Vadose zone soil dry	ENTER Vadose zone soil total	ENTER Vadose zone soil water-filled		Average vapor flow rate into bldg.	
	ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity,	ENTER Vadose zone soil water-filled porosity,		Average vapor flow rate into bldg. (Leave blank to calculate)	
	ENTER Vandose zone SCS	ENTER Vadose zone soil dry	ENTER Vadose zone soil total	ENTER Vadose zone soil water-filled		Average vapor flow rate into bldg.	
	ENTER Vandose zone SCS soil type Lookup Soil	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity, n ^V	ENTER Vadose zone soil water-filled porosity, θ_w^{\vee}		Average vapor flow rate into bidg. (Leave blank to calculate) Q _{soll}	
•	ENTER Vandose zone SCS soil type Lookup Soil	ENTER Vadose zone soil dry bulk density, ρ _h ^ (g/cm³)	ENTER Vadose zone soil total porosity, n ^v (unitless)	ENTER Vadose zone soil water-filled porosity, θ _w (cm³/cm³)		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
	ENTER Vandose zone SCS soil type Lookup Soil	ENTER Vadose zone soil dry bulk density, ρ _h ^ (g/cm³)	ENTER Vadose zone soil total porosity, n ^v (unitless)	ENTER Vadose zone soil water-filled porosity, θ _w (cm³/cm³)		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
MORE	ENTER Vandose zone SCS Soil type Lookup Soil Parameters ENTER Averaging	ENTER Vadose zone soil dry bulk density, \$\rho_b^\alpha\\((\mathrm{g}/\mathrm{cm}^3)\) 1.5 ENTER Averaging	ENTER Vadose zone soil total porosity, n ^y (unitless) 0.43	ENTER Vadose zone soil water-filled porosity, θ, (cm³/cm³) 0.15		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
MORE	ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging time for	ENTER Vadose zone soil dry bulk density, p _b ^ (g/cm³) 1.5 ENTER Averaging time for	ENTER Vadose zone soil total porosity, n (unitless) 0.43 ENTER Exposure	ENTER Vadose zone soil water-filled porosity, θ,, (cm³/cm³) 0.15 ENTER Exposure		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
MORE	ENTER Vandose zone SCS Soil type Lookup Soil Parameters ENTER Averaging time for carcinogens,	ENTER Vadose zone soil dry bulk density, Pb^ (g/cm³) 1.5 ENTER Averaging time for noncarcinogens,	ENTER Vadose zone soil total porosity, n (unitless) 0.43 ENTER Exposure duration,	ENTER Vadose zone soil water-filled porosity, $\theta_{w}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
MORE	ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging time for	ENTER Vadose zone soil dry bulk density, p _b ^ (g/cm³) 1.5 ENTER Averaging time for	ENTER Vadose zone soil total porosity, n (unitless) 0.43 ENTER Exposure	ENTER Vadose zone soil water-filled porosity, θ,, (cm³/cm³) 0.15 ENTER Exposure		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
MORE	ENTER Vandose zone SCS Soil type Lookup Soil Parameters ENTER Averaging time for carcinogens, ATc	ENTER Vadose zone soil dry bulk density, Ph^ (g/cm³) 1.5 ENTER Averaging time for noncarcinogens, AT _{NC}	ENTER Vadose zone soil total porosity, n (unitless) 0.43 ENTER Exposure duration, ED	ENTER Vadose zone soil water-filled porosity, θ,,,,,, (cm³/cm³) 0.15 ENTER Exposure frequency, EF		Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA NA	9.9E-05

MESSAGE SUMMARY BELOW:

				_	AIA LIVIN	SHEET		
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guida Interim Final 12/04	nce	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)		
Defaults	Chemical CAS No. (numbers only,	gas conc., C₀	OR	gas conc., C _a				1576EB@5'-R
	no dashes)	()ug/m³)		(ppmv)		Chemical		
	100414	1.50E+01				Ethylbenzene		
	ENTER Depth	ENTER	ENTER	ENTER	<u></u>	ENTER		
MORE →	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type		User-defined vadose zone soil vapor		
	space floor, L _F	below grade, L,	temperature, T _s	(used to estimate soil vapor	OR	permeability, k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)		
	15	154.4	24					
	Enter correct SCS	soil type, or user-de	fined permeability					
MORE .	ENTER Vandose zone SCS	ENTER Vadose zone soil dry	ENTER Vadose zone soil total	ENTER Vadose zone soil water-filled		ENTER Average vapor flow rate into bldg. (Leave blank to calculate)		
	Soil type Lookup Soil Parameters	bulk density, ρ _ε ^ (g/cm³)	porosity, n ^v (unitless)	porosity, θ _w ^V (cm³/cm³)		Q _{sol} (L/m)		
		1.5	0.43	0.15		5		
MORE	ENTED	FUTED	ENTED	ENTED				
	ENTER Averaging	ENTER Averaging	ENTER	ENTER				
	time for carcinogens,	time for noncarcinogens,	Exposure duration,	Exposure frequency,				
	AT _c (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)				
	70	30	30	350				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.3E-08	1.2E-05

MESSAGE SUMMARY BELOW:

					DATAENTRY	SHEET		
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidar Interim Final 12/04	nce	
Reset to	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)		
Defaults	Chemical CAS No. (numbers only,	gas conc., C _g	OR	gas conc., C _g				1576EB@5'-I
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	100414	1.50E+01	· 			Ethylbenzene		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
4	to bottom	sampling	Average	scs		vadose zone		
	of enclosed space floor,	depth below grade,	soil temperature,	soil type (used to estimate	OR	soil vapor permeability,		
	L _F	L _s	T _s	soil vapor	OR	k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	(10 01 200 0111)	(Citi)		ретпеавику				
	15	154.4	24					
	ENTER	soil type, or user-de	ENTER	ENTER		ENTER		
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled		Average vapor flow rate into bidg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	ρ, ^	n ^v	θ_{w}^{\vee}		Q_{soil}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5	0.43	0.15		5		
MORE								
<u> </u>	ENTER Averaging	ENTER Averaging	ENTER	ENTER				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	AT _{NC}	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				

DTSC / HERD Last Update: 11/1/03

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
7.6E-09	7.1E-06

MESSAGE SUMMARY BELOW:

				ſ	DATA ENTR	Y SHEET		
SG-SCREEN						DTSC		
PA Version 2.0; 04/						Vapor Intrusion Guida	nce	
		Soil	Gas Concentration	n Data		Interim Final 12/04		
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576X@5'-R
	CAS No.	conc.,		conc.,				
	(numbers only,	C ₂		C _a				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	95476	7.70E+01				o-Xylene		
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Depth below grade	Soil gas		Vadose zone		User-defined		
—	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	LF	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
		102.						
	Enter correct SCS	soil type, or user-de	fined permeability.					
MORE	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled		Average vapor flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate))	
	Lookup Soil	ρ_b^A	n ^v	θ,,,		Q _{soi}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5	0.43	0.15		5		
MORE +	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	ENIER	ENTER				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	ATNO	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	30	350				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	6.8E-04

MESSAGE SUMMARY BELOW:

				ſ	DATA ENTRY SHEET	
SG-SCREEN					DTSC	
A Version 2.0; 04/					Vapor Intrusion Guidance	
			Gas Concentration		Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults		Soil		Soil		570V @ 51 1
	Chemical	gas	OR	gas	1	576X@5'-l
	CAS No.	conc.,		conc.,		-
	(numbers only,	C _α (μg/m³)		C _s	Chaminal	
	no dashes)	(μg/m)		(ppmv)	Chemical	
	95476	7.70E+01			o-Xylene	
	ENTER	ENTER	ENTER	ENTER	ENTER	
	Depth	LITTER	FIATER	Liven	- THEN	
MORE	below grade	Soil gas		Vadose zone	User-defined	
•	to bottom	sampling	Average	SCS	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	L _s	Ts	soil vapor	, K _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	45	4504	24		1	
	15	152.4	24			
	Enter correct SCS	soil type, or user-de	tined permeability			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
•	scs	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil Parameters	ρь^	n ^v	θ, ν	\mathbf{Q}_{soil}	
	r arameters	(g/cm³)	(unitless)	(cm ³ /cm ³)	(L/m)	
		1.5	0.43	0.15	5	
			0.40	3.70	The state of the s	
MODE						
MORE	ENTER	ENTER	ENTER	ENTER		
	Averaging	Averaging	ENTER	617761		
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	ATc	ATNC	ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)	•	
	70	30	25	250	1	
		30 1		250		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	4.0E-04

MESSAGE SUMMARY BELOW:

				L	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/			Gas Concentration		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults		Soil		Soil	4.5707145	4050515
	Chemical CAS No.	gas	OR	gas	15/61Mb	135@5'-R
	(numbers only,	conc., C _a		conc., C _a		
		(μg/m³)			Observings	
	no dashes)	(µg/m/)	•	(ppmv)	Chemical	
	108678	5.80E+00			1,3,5-Trimethylbenzene	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE	below grade	Soil gas		Vadose zone	User-defined	
•	to bottom	sampling	Average	scs	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate		
	L _F	L ₉	T _s	soil vapor	k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	152.4	24	<u> </u>		
		soil type, or user-de	,			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled	Average vapor flow rate into bidg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil	ρ _ь ^	n ^v	θ,,	Q _{sod}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
				- American form		
		1.5	0.43	0.15	5	
MORE						
•	ENTER	ENTER	ENTER	ENTER		
	Averaging time for	Averaging time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	AT _C	AT _{NC}	ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)	_	
					-	
	70	30	30	350	J	

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INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
<u> </u>	
NA	6.7E-04

MESSAGE SUMMARY BELOW:

					MINEMIKI	SHEET	
G-SCREEN /ersion 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidanc Interim Final 12/04	е
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)	
Defaults	Chemical CAS No.	gas conc.,	OR	gas conc.,			1576TMB13
	(numbers only, no dashes)	C _p (μg/m³)		C _s (ppmv)		Chemical	
	108678	5.80E+00	1			1,3,5-Trimethylbenzen	е
	ENTER Depth	ENTER	ENTER	ENTER		ENTER	
MORE	below grade to bottom	Soil gas sampling	Average	Vadose zone SCS		User-defined vadose zone	
	of enclosed space floor,	depth below grade,	soil temperature,	soil type (used to estimate	OR	soil vapor permeability.	
	L _F (15 or 200 cm)	L, (cm)	T _s (°C)	soil vapor permeability)		k _v (cm²)	
	15	152.4	24				
	Enter correct SCS	soil type, or user-de	efined permeability	·.			
MORE ₩	ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity,	ENTER Vadose zone soil water-filled porosity,		ENTER Average vapor flow rate into bldg. (Leave blank to calculate)	
	Lookup Soll Parameters	ρ _ь ^ (g/cm³)	n ^v (unitless)	θ _w ν΄ (cm³/cm³)		Q _{soil} (L/m)	
		1.5	0.43	0.15		5	
MORE ↓	ENTER	ENTER	ENTER	ENTER			
	Averaging	Averaging time for	Exposure	Exposure			
	time for carcinogens,	noncarcinogens,	duration,	frequency,			
			duration, ED (yrs)	frequency, EF (days/yr)			

1576TMB135@5'_I 3/5/2009 11:01 AM

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
4.0E-04

MESSAGE SUMMARY BELOW:

				L	MIMENINI	SHEET		
SG-SCREEN						DTSC		
A Version 2.0; 04/		0.11	0. 0			Vapor Intrusion Guidane	ce	
	ENTER	ENTER	Gas Concentration			Interim Final 12/04		
Reset to Defaults	ENTER	Soil		ENTER Soil		(last modified 1/21/05)		
Delauits	Chemical	gas	OR	gas				1576TMB@5'-R
	CAS No.	conc.,		conc.,				
	(numbers only,	C.		C.				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
			•					
	95636	1.70E+01				1,2,4-Trimethylbenzer	ne	
	ENTER	ENTER	ENTER	ENTER		ENTER		
	Depth]		
MORE	below grade	Soil gas		Vadose zone		User-defined		
•	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed space floor,	depth	soil	soi! type (used to estimate	OR	soil vapor permeability,		
	space noor, L _F	below grade,	temperature,	soil vapor	OR			
		L _s	T _s	· ·		k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
	13	132.4	24	L				
	Enter correct SCS	soil type, or user-de	efined nermeability					
	211101 0011001 000		, miles por measurity	•				
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
•	SCS	soil dry	soil total	soil water-filled		flow rate into bidg.		
	soil type	bulk density,	porosity, n ^V	porosity, θ _w [∨]		(Leave blank to calculate)		
	Lookup Soil Parameters	ρ _b ^A				Q _{sol}		
		(g/cm³)	(unitless)	(cm³/cm³)		(<u>L/m)</u>		
		1,5	0.43	0.15		5		
		1.0	0.40	0.10				
MORE	FNITER	CHITCO	FNITED	FAITER				
	ENTER	ENTER	ENTER	ENTER				
	Averaging time for	Averaging time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _C	AT _{NC}	ED .	EF.				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	- Minter							
	70	30	30	350				

DTSC / HERD Last Update: 11/1/03

END

1576TMB@5'_R 3/5/2009 10:58 AM

INCREMENTAL RISK CALCULATIONS:

incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	2.0E-03

MESSAGE SUMMARY BELOW:

				L	MINENIN	ISHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER Chemical	ENTER Soil gas	OR	ENTER Soil gas		(last modified 1/21/05)	1576TMB@5'-
	CAS No.	conc.,		conc.,			
	(numbers only,	C _n		C _a			
	no dashes)	(μg/m³)	_	(ppmv)		Chemical	
	95636	1.70E+01]			1,2,4-Trimethylbenzene	
	ENTER Depth	ENTER	ENTER	ENTER		ENTER	
MORE	below grade	Soil gas		Vadose zone		User-defined	
<u> </u>	to bottom	sampling	Average	SCS		vadose zone	
	of enclosed	depth	soil	soil type	00	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,	
	L _F	L,	Ts	soil vapor		k, 2	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)	
	15	152.4	24				
	Enter correct SCS	soil type, or user-de	efined permeability	ENTER		ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor	
+	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)	
	Lookup Soil	ρ_b^{Λ}	n ^v	θ_{w}^{\vee}		Q _{soil}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)	
		1.5	0.43	0.15		5	
MORE ↓	ENTER	ENTER	ENTER	ENTER			
	Averaging	Averaging	Eveneure	Eumanura			
	time for	time for noncarcinogens,	Exposure duration,	Exposure			
	carcinogens, AT _c	•	ED	frequency, EF			
		AT _{NC}	(yrs)	(days/yr)			
	(yrs)	(yrs)	(yis)	(days/yi)			
	70	30	25	250			

DTSC / HERD Last Update: 11/1/03

END

1576TMB@5'_! 3/5/2009 10:59 AM

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA NA	1.2E-03

MESSAGE SUMMARY BELOW:

G-SCREEN /ersion 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)	
Defaults	Chemical CAS No.	gas conc.,	OR	gas conc.,			1576AC@5'-
	(numbers only,	C _e		C _a			
	no dashes)	(μg/m³)	•	(ppmv)		Chemical	PART OF PARTY AND ADDRESS OF THE PARTY AND ADD
	67641	3.20E+02				Acetone	
	ENTER Depth	ENTER	ENTER	ENTER		ENTER	
MORE	below grade	Soil gas		Vadose zone		User-defined	
+	to bottom	sampling	Average	scs		vadose zone	
	of enclosed	depth	soil	soil type		soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,	
	L _F	L.	T_{S}	soil vapor		k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	110 01 200 0111			1			
	15	125.4	24				
MORE +	15		24		<u> </u>	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density, Pb	ENTER Vadose zone soil total porosity, n ^V	ENTER Vadose zone soil water-filled porosity,		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol}	
	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density, ρ_b^{Λ} (g/cm³) 1.5	efined permeability ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^{\vee} (cm^3/cm^3)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
₩ORE	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density, p _b ^ (g/cm³)	efined permeability ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^{\vee} (cm^3/cm^3)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
₩ORE	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging time for	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density, pb^ (g/cm³) 1.5 ENTER Averaging	efined permeability ENTER Vadose zone soil total porosity, n (unitless) 0.43	ENTER Vadose zone soil water-filled porosity, θ _w (cm³/cm³) 0.15		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
₩ORE	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density,	24 Enter Enter Vadose zone soil total porosity, n (unitless) 0.43 Enter Exposure	ENTER Vadose zone soil water-filled porosity, θ _w (cm³/cm³) 0.15 ENTER Exposure		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
₩ORE	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging time for carcinogens,	125.4 soil type, or user-de ENTER Vadose zone soil dry bulk density, p _b ^ (g/cm³) 1.5 ENTER Averaging time for noncarcinogens,	efined permeability ENTER Vadose zone soil total porosity, n (unitless) 0.43 ENTER Exposure duration,	ENTER Vadose zone soil water-filled porosity, θ _w (cm³/cm³) 0.15 ENTER Exposure frequency,		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
₩ORE	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters ENTER Averaging time for carcinogens, ATc	soil type, or user-de ENTER Vadose zone soil dry bulk density, ph (g/cm³) 1.5 ENTER Averaging time for noncarcinogens, AT _{NC}	ENTER Vadose zone soil total porosity, n ^V (unitless) 0.43 ENTER Exposure duration, ED	ENTER Vadose zone soil water-filled porosity, θ_w^{\vee} (cm³/cm³) 0.15 ENTER Exposure frequency, EF		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)

MESSAGE SUMMARY BELOW:

1,1E-03

NA

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

SG-SCREEN PA Version 2.0; 04/ Reset to Defaults	ENTER Chemical CAS No. (numbers only, no dashes)	Soil ENTER Soil gas conc., C _g (µg/m³)	Gas Concentration	ENTER Soil gas conc., C _o (ppmv)		DTSC Vapor Intrusion Guidal Interim Final 12/04 (last modified 1/21/05) Chemical	1576AC@5'-l
	67641	3.20E+02				Acetone	
MORE ¥	ENTER Depth below grade to bottom of enclosed space floor,	ENTER Soil gas sampling depth below grade,	ENTER Average soil temperature,	ENTER Vadose zone SCS soil type (used to estimate	OR	ENTER User-defined vadose zone soil vapor permeability,	
	L _F	L,	Ts	soil vapor	OR	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	15	125.4	24				
	Enter correct SCS	soil type, or user-de	fined permeability				
MORE ↓	ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, p _b ^A (g/cm ³)	ENTER Vadose zone soil total porosity, n (unitless)	ENTER Vadose zone soil water-filled porosity, θ_{w}^{\vee} (cm³/cm³)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
		1.5	0.43	0.15		5	
MORE ↓	ENTER Averaging time for carcinogens, AT _c (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)		<u> </u>	
	70	30	25	250			

DTSC / HERD Last Update: 11/1/03

END

DTSC Indoor Air Guidance Unclassified Soil Screening Model 1576AC@5'_l 3/5/2009 10:15 AM

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard			
risk from	quotient			
vapor	from vapor			
intrusion to	intrusion to			
indoor air,	indoor air,			
carcinogen	noncarcinogen			
(unitless)	(unitless)			
	- C C C O4			

MESSAGE SUMMARY BELOW:

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

					ATA ENTRY	SHEET		
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidan Interim Final 12/04	осе	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults	Observed	Soil	OR	Soil				1570CDC@E' D
	Chemical CAS No.	gas conc.,	OR	gas conc.,				1576CDS@5'-R
	(numbers only,	C _n		C _s				
	•	(μg/m³)		I		Chemical		
	no dashes)	[(μg/π)	:	(ppmv)		Chemical		
	75150	3.60E+01				Carbon disulfide		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
•	to bottom	sampling	Average	scs		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L _s	T _s (°C)	soil vapor		k _v (cm²)		
	(15 or 200 cm)	(cm)	(C)	permeability)		(CIII)		
	15	152.4	24	<u> </u>				
		soil type, or user-de						
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled		Average vapor flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	Pb ^A	n ^v	θ,, ν		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(90)	(dilitios)			(4.11)		
		1.5	0.43	0.15_		5		
MORE	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging						
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _C	ATNC	ED (ver)	EF (dough m)				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	30	350				

DTSC / HERD Last Update: 11/1/03

END

DTSC Indoor Air Guidance Unclassified Soil Screening Model 1576CDS@5'_R 3/5/2009 10:22 AM

INCREMENTAL RISK CALCULATIONS:

Hazard			
quotient			
from vapor			
intrusion to			
indoor air,			
noncarcinogen			
(unitless)			
5.0E-05			

MESSAGE SUMMARY BELOW:

				5	ATAENTA SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	Chemical CAS No. (numbers only,	ENTER Soil gas conc.,	OR	ENTER Soil gas conc.,	(last modified 1/21/05)	1576CDS@5'-l
	no dashes)	C _n (μg/m³)		C _p (ppmv)	Chemical	=
	75150	3.60E+01			Carbon disulfide]
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE ↓	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type	User-defined vadose zone soil vapor	
	space floor, L _F	below grade, L,	temperature,	(used to estimate soil vapor	OR permeability,	
	(15 or 200 cm)	(cm) 152.4	(°C)	permeability)	(cm²)	
MORE ↓	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters	Soil type, or user-de ENTER Vadose zone soil dry bulk density, p _b ^A (g/cm³)	ENTER Vadose zone soil total porosity, n ^v (unitless)	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{sot} (L/m)	
MORE +	ENTER	1.5 ENTER	0.43 ENTER	0.15	5	
	Averaging time for carcinogens, AT _c	Averaging time for noncarcinogens, AT _{NC}	Exposure duration, ED	Exposure frequency, EF		
	(yrs)	(yrs) 30	(yrs) 25	(days/yr) 250		
	/U	30	25			
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard				
risk from	quotient				
vapor	from vapor				
intrusion to	intrusion to				
indoor air,	indoor air,				
carcinogen	noncarcinogen				
(unitless)	(unitless)				
NA	3.0E-05				

MESSAGE SUMMARY BELOW:

				[DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults		Soil		Soil		
	Chemical	gas	OR	gas		1576MEK@5'-R
	CAS No.	conc.,		conc.,		
	(numbers only,	C _a		C ^a		
	no dashes)	(μg/m³)	=	(ppmv)	Chemical	
	78933	2.30E+01	1		Mathidath distance (2 hutanage)	
	70955	2.302+01			Methylethylketone (2-butanone)	
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Depth below grade	Soil gas		Vadose zone	User-defined	
MORE	to bottom	sampling	Average	SCS	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	LF	L,	Ts	soil vapor	k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	152.4	24			
	Enter correct SCS	soil type, or user-de	efined permeability			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
<u> </u>	SCS	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity, n ^v	porosity.	(Leave blank to calculate)	
	Lookup Soil Parameters	ρ, Α		θ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Q _{sof}	
		(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
		1.5	0.43	0.15	5	
MORE .	ENTER	ENTER	ENTER	ENTER		
	Averaging time for	Averaging time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	AT _C	AT _{NC}	ED ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	70	30	30	350		

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
3.9E-06

MESSAGE SUMMARY BELOW:

				L	DATA ENTRY	SHEET		
SG-SCREEN A Version 2.0; 04/			Gas Concentration			DTSC Vapor Intrusion Guidar Interim Final 12/04	nce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576MEK@5'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C ₂		C°				
	no dashes)	(μg/m³)	:	(ppmv)		Chemical		
	70000		1					
	78933	2.30E+01			Me	thylethylketone (2-but	anone)	
	ENTER	ENTER	ENTER	ENTER		ENTER		
	Depth	2,002.0	2111211	2117211				
MORE	below grade	Soil gas		Vadose zone		User-defined		
₩	to bottom	sampling	Average	SCS		vadose zone		,
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L_{F}	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
		soil type, or user-de	, ,					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,	•	(Leave blank to calculate)		
	Lookup Soil Parameters	ρ_b^{Λ}	n ^v	θ,,,,		Q _{soll}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5	0.43	0.15		5		
MORE								
<u> </u>	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	F	F				
	time for	time for	Exposure duration,	Exposure				
	carcinogens,	noncarcinogens,	ED	frequency, EF				
	AT _C (yrs)	AT _{NC} (yrs)	(yrs)	(days/yr)				
	[Ais]	(712)	(312)	(uays/yr)				
	70	30	25	250				

1576MEK@5'_I 3/5/2009 10:30 AM

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA NA	2,3E-06

MESSAGE SUMMARY BELOW:

					DATA ENTRY	SHEET		
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidar Interim Final 12/04	nce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576CB@5'-R
	CAS No.	conc.,		conc.,				
	(numbers only,	C _n		C _a				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	400007	0.005.00	1	r				ı
	108907	9.00E+00	<u> </u>	<u> </u>		Chlorobenzene		
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Depth below grade	Soil gas		Vadose zone		User-defined		
J.	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	LF	La	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
	Enter correct SCS	soil type, or user-de	fined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
*	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil Parameters	Pb^	n ^v	θ,,,		Q _{soi}		
	, alameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
	<u> </u>	1,5	0.43	0.15		5		
		1	V. 10	0.10				
MORE	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging						
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _c	AT _{NC}	ED ()	EF (days (sr)				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	30	350				

DTSC / HERD Last Update: 11/1/03

END

DTSC Indoor Air Guidance Unclassified Soil Screening Model 1576CB@5'_I 3/5/2009 11:03 AM

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard			
risk from	quotient			
vapor	from vapor			
intrusion to	intrusion to			
indoor air,	indoor air,			
carcinogen	noncarcinogen			
(unitless)	(unitless)			
NA	7.0E-06			

MESSAGE SUMMARY BELOW:

	DATA ENTRY SHEET							
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidan Interim Final 12/04	ce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576CB@5'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C _n		C _p				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	108907	9.00E+00				Chlorobenzene		
								•
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
	to bottom	sampling	Average	SCS		vadose zone		
<u></u>	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
		soil type, or user-de						
MODE	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled		Average vapor flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soii	ρ _b ^A	n ^v	θων		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(9)	(distress)	(5111761177		(271)		
		1.5	0.43	0.15		5		
MORE								
+	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	_	_				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _c (yrs)	AT _{nc} (yrs)	ED (yrs)	EF (days/yr)				
	(3,2)	(713)	(3,2)	(uayayı)				
	70	30	25	250				
		· · · · · · · · · · · · · · · · · · ·						

DTSC / HERD Last Update: 11/1/03

INCREMENTAL RISK CALCULATIONS:

incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	4.2E-06

MESSAGE SUMMARY BELOW:

END

1 of 1

				L	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/			Gas Concentratio		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER Chemical CAS No. (numbers only,	ENTER Soil gas conc., C _g	OR	ENTER Soil gas conc., Cg	(last modified 1/21/05)	1576TCE@5'-R
	79016	(μg/m³) 1.60E+01]	(ppmv)	Chemical Trichloroethylene	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE	below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Soil gas sampling depth below grade, L _s (cm)	Average soil temperature, T _s (°C)	Vadose zone SCS soil type (used to estimate soil vapor permeability)	User-defined vadose zone soil vapor OR permeability, k _v (cm²)	
	15	152.4	24			
	Enter correct SCS	soil type, or user-de	efined permeability	<i>'</i> .		
MORE	ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm ³)	ENTER Vadose zone soil total porosity, n (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sot} (L/m)	
		1.5	0.43	0.15	5	
MORE	ENTER Averaging time for carcinogens, AT _c (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)		
	70	30	30	350		
END						

1576TCE@5'_R 3/5/2009 10:33 AM

INCREMENTAL RISK CALCULATIONS:

Incremental risk from	Hazard quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.1E-08	2.2E-05

MESSAGE SUMMARY BELOW:

				·	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentratio	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
		Soil		Soil	(1001 11100)	
Defaults	Chemical	gas	OR			1576TCE@5'-I
	CAS No.	conc.,	OK	gas		13/0102@3-1
	(numbers only,			conc.,		
		C _p		C,		
	no dashes)	(μg/m³)	ı	(ppmv)	Chemical	
	79016	1.60E+01			Trichloroethylene	
	ENTER	ENTER	ENTER	ENTER	ENTER	
	Depth					
MORE	below grade	Soil gas		Vadose zone	User-defined	
<u> </u>	to bottom	sampling	Average	SCS	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L_{F}	L,	τ_s	soil vapor	k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm ²)	
					SULCOMO DE LA COMO DE	
	15	152.4	24			
MORE	ENTER Vandose zone	soil type, or user-de ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Average vapor	
	SCS	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil Parameters	Pb ^A	u.	θ,,,,	Q _{sol}	
	7 diameters	(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
		1.5	0.43	0.15	5	
MORE +	ENTER Averaging time for carcinogens, AT _c (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)		
		30]	25	230		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
6.7E-09	1.3E-05

MESSAGE SUMMARY BELOW:

				L	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults	Chemical	Soil gas	OR	Soil gas	,	1576PCE@5'-R
	CAS No.	conc.,		conc.,		
	(numbers only,	C _a		C,		
	no dashes)	(μ g/m³)		(ppmv)	Chemical	
			•			
	127184	4.70E+02			Tetrachloroethylene	J
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE	below grade	Soil gas		Vadose zone	User-defined	
•	to bottom	sampling	Average	scs	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L_{F}	L,	T_s	soil vapor	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm ²)	
	15	152.4	24	<u></u>		
MORE +	Enter correct SCS ENTER Vandose zone SCS soil type	soil type, or user-de ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity,	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bldg. (Leave blank to calculate)	
	Lookup Soil	ρ _b ^A	n ^v	$\theta_{\mathbf{w}}^{V}$,	
	Parameters	P _b (g/cm³)		(cm³/cm³)	Q _{soā}	
		(g/ciii)	(unitless)	(CIII /CIII)	(L/m)	
		1.5	0.43	0.15	5	
MORE	ENTER Averaging time for	ENTER Averaging time for	ENTER Exposure	ENTER Exposure		
	carcinogens,	noncarcinogens,	duration, ED	frequency, EF		
	AT _c (yrs)	AT _{NC} (yrs)	(yrs)	(days/yr)		
			0,9	(daysiyi)		
	70	30	30	350		
END						

DTSC / HERD Last Update: 11/1/03

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)_	(unitless)
9.2E-07	1.0E-02

MESSAGE SUMMARY BELOW:

END

1 of 1

					DATA ENTRY	SHEET		
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guida Interim Final 12/04	nce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				
	Chemical	gas	OR	gas				1576PCE@5'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C _n		C"				
	no dashes)	(μg/m³)	•	(ppmv)		Chemical		
	127184	4.70E+02	1			Tetrachloroethylen		
	12/104	4.70E+02	L			retrachioroethylen	e	
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
	to bottom	sampling	Average	SCS		vadose zone		
<u> </u>	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	LF	L	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	152.4	24					
	Enter correct SCS	soil type, or user-de	fined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
<u> </u>	scs	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity, n ^v	porosity, θ_{w}^{\vee}		(Leave blank to calculate)		
	Lookup Soil Parameters	ρ _ν ^ (g/cm³)		(cm³/cm³)		Q _{sof}		
		(g/cm)	(unitless)	(cm /cm)		(L/m)		
		1.5	0.43	0.15		5		
MORE								
	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	F					
	time for	time for	Exposure	Exposure				
	carcinogens, AT _c	noncarcinogens, AT _{NC}	duration, ED	frequency, EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	4.0/	7.57	<u> </u>	100,000				
	70	30	25	250				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
5.5E-07	6.2E-03

MESSAGE SUMMARY BELOW:

SUMMARY OF SITE ASSESSMENTS 11630-11700 Burke Street, Santa Fe Springs, CA 90670	
	SOIL GAS DATA FROM 15 FEET

	DATA ENTRY SHEET					
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults		Soil		Soil		
	Chemical	gas	OR	gas	•	1576B@15'-R
	CAS No.	conc.,		conc.,		
	(numbers only,	C _p		C,		
	no dashes)	(μg/m³)	:	(ppmv)	Chemical	
	71432	1.005.00	1			
	/1432	1.60E+02	L		Benzene	
	ENTER	ENTER	ENTER	ENTER	ENTER	
	Depth			1	1	
MORE	below grade	Soil gas		Vadose zone	User-defined	
<u> </u>	to bottom	sampling	Average	scs	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	L.	T _s	soil vapor	k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	45	457	24			
	15	457	24			
	Enter correct SCS	soil type, or user-de	fined permeability.			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
+	SCS	soil dry	soil total	soil water-filled	flow rate into bidg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil Parameters	ρ _δ	nv	θ,,,	Q _{sol}	
	Farametes	(g/cm³)	(unitless)	(cm³/cm³)	(<u>L/m)</u>	
		1.5	0.43	0.15	5	
	<u> </u>	1.5	0.43	0.13	3	
MORE	ENTER	ENTER	ENTER	ENTER		
	Averaging	Averaging	ENIER	ENIER		
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	AT _C	AT _{NC}	ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
		V-7	<u> </u>	(20,01)		
	70	30	30	350		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
,	
7.4E-07	2.0E-03

MESSAGE SUMMARY BELOW:

					DATA ENTR	YSHEET		
SG-SCREEN Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidan Interim Final 12/04	ce	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)		
Delauits	Chemical	gas	OR	gas				1576B@15'-
	CAS No.	conc.,		conc.,				
	(numbers only,	C.		C,				
	no dashes)	(μg/m³)		(ppmv)		Chemical		•
	71432	1.60E+02	1			Benzene		1
		1,,002.02	Ĺ <u>. </u>	<u> </u>		Delizerio		,
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
₩	to bottom	sampling	Average	SCS		vadose zone		
<u> </u>	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	LF	Ĺ,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)		
	15	457	24					
	Enter correct SCS	soil type, or user-de	efined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
•	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soli	ρ_b^{Λ}	n ^v	θ_{w}^{V}		Q _{sot}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(U/m)		
		1.5	0.43	0.15		5		
	1000							
MORE +	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	_	_				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _c	AT _{NC}	ED (EF (downton)				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
4.4E-07	1.2E-03

MESSAGE SUMMARY BELOW:

END

1 of 1

				·	JAIA ENIK	TOREI	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration			DTSC Vapor Intrusion Guidar Interim Final 12/04	nce
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)	
Defaults	Chemical CAS No. (numbers only,	Soil gas conc., C _a	OR	Soil gas conc., C _a			1576T@15'-R
	no dashes)	(μg/m³)		(ppmv)		Chemical	
	THO GOOTHOOT		•				
	108883	1.00E+03				Toluene	
	ENTER	ENTER	ENTER	ENTER		ENTER	
	Depth	ENIER	ENIER	ENIER		ENILK	
MORE .	below grade to bottom	Soil gas sampling	Average	Vadose zone SCS		User-defined vadose zone	
	of enclosed	depth	soil temperature,	soil type (used to estimate	OR	soil vapor permeability,	
	space floor, L _F	below grade, し	T _s	soil vapor	OR	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	(100) 200 0117	(0.17)					
	15	457	24				
		soil type, or user-de					
MORE	ENTER Vandose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone		ENTER Average vapor	
W. L.	SCS	soil dry	soil total	soil water-filled		flow rate into bidg.	
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)	
	Lookup Soil	ρ_b ^	n ^v	θ.,,``		Q _{sol}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)	
	L	1.5	0.43	0.15		5	
MORE	ENTER	ENTER	ENTER	ENTER			
	Averaging	Averaging	LIVILIN	LIVILIA			
	time for	time for	Exposure	Exposure			
	carcinogens,	noncarcinogens,	duration,	frequency,			
	AT _c	AT _{NC}	ED (vm)	EF (doughe)			
	(yrs)	(yrs)	(yrs)	(days/yr)			
	70	30	30	350			
END							

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
1.2E-03

MESSAGE SUMMARY BELOW:

END

1576T@15'_R 1 of 1

	DATA ENTRY SHEET						
SG-SCREEN A Version 2.0; 04/		C-11	Con Consortantia	. Data	•	sion Guidance	
Reset to	ENTER	ENTER Soil	Gas Concentration	ENTER Soil	Interim Fina (last modified		
Defaults	Chemical CAS No. (numbers only,	gas conc., C _p	OR	gas conc., C _g			1576T@15'-I
	no dashes)	(μg/m³)	:	(ppmv)	Che	emical	
	108883	1.00E+03	<u> </u>		Tol	uene]
	ENTER Depth	ENTER	ENTER	ENTER	ENTE		
MORE ↓	below grade to bottom of enclosed space floor, L _F	Soil gas sampling depth below grade, Ł,	Average soil temperature, T _s	Vadose zone SCS soil type (used to estimate soil vapor	User-de vadose soil va OR permeal k,	zone por bility,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	457	24				
	Enter correct SCS	soil type, or user-de	fined permeability				
MORE	ENTER Vandose zone SCS	ENTER Vadose zone soil dry	ENTER Vadose zone soil total	ENTER Vadose zone soil water-filled	ENTE Average flow rate in	vapor	
····	soil type	bulk density,	porosity,	porosity,	(Leave blank to	calculate)	
	Lookup Soil Parameters	ρ,	n ^v	θ,,,	Q _{sot}		
	Falancias	(g/cm ³)	(unitless)	(cm³/cm³)	(<u>U</u> m)	
		1.5	0.43	0.15	5		
MORE	ENTER	ENTER	ENTER	ENTER			
<u> </u>	Averaging	Averaging					
	time for carcinogens,	time for noncarcinogens,	Exposure duration,	Exposure frequency,			
	AT _c	AT _{NC}	ED	EF			
	(yrs)	(yrs)	(yrs)	(days/yr)			
	70	30	25	250			
		30	20	200			

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA NA	7.3E-04

MESSAGE SUMMARY BELOW:

	DATA ENTRY SHEET				
SG-SCREEN PA Version 2.0; 04/ Soil Gas Concentration Data DTSC Vapor Intrusion Guidance Interim Final 12/04					
Reset to ENTER ENTER ENTER (last modified 1/21/05)					
Defaults Chemical gas OR gas CAS No. conc., conc.,	1576EB@15'-R				
(numbers only, C _a C _a					
no dashes) (μg/m³) (ppmv) Chemical	-				
100414 6.50E+02 Ethylbenzene					
ENTER ENTER ENTER ENTER Depth					
MORE below grade Soil gas Vadose zone User-defined to bottom sampling Average SCS vadose zone of enclosed depth soil soil type soil vapor					
space floor, below grade, temperature, (used to estimate OR permeability,					
L _F L _s T _S soil vapor k _v					
(15 or 200 cm) (cm) (°C) permeability) (cm²)					
100 200 000					
15 457 24					
Enter correct SCS soil type, or user-defined permeability.					
ENTER ENTER ENTER ENTER MORE Vandose zone Vadose zone Vadose zone Average vapor					
MORE Vandose zone Vadose zone Vadose zone Average vapor ✓ SCS soil dry soil total soil water-filled flow rate into bldg.					
soil type bulk density, porosity, porosity, (Leave blank to calculate)					
Lookup Soll ρ_b^{Λ} n^{V} θ_w^{V} Q_{sol}					
Parameters (g/cm³) (unitless) (cm³/cm³) (L/m)					
1.5 0.43 0.15 5					
MORE					
Averaging Averaging					
time for time for Exposure Exposure carcinogens, noncarcinogens, duration, frequency,					
AT _C AT _{NC} ED EF					
(yrs) (yrs) (days/yr)					
70 30 30 350					

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
2.3E-07	2.1E-04

MESSAGE SUMMARY BELOW:

END

1576EB@15'_R 1 of 1

				1	DATA ENTRY	SHEET		
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guida Interim Final 12/04	nce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults	.	Soil		Soil				45505004514
	Chemical	gas	OR	gas				1576EB@15'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C,		C _a				
	no dashes)	(μg/m³)	:	(ppmv)		Chemical		
	100414	6.50E+02	<u> </u>			Ethylbenzene		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
₩	to bottom	sampling	Average	scs		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	Ļ	Ts	soil vapor		k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24	L		<u> </u>		
	Enter correct SCS	soil type, or user-de	efined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
+	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	ρ,	n ^v	θ.,,		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5						
	L	1.5	0.43	0.15		5		
MORE								
	ENTER	ENTER	ENTER	ENTER				
	Averaging time for	Averaging time for	Evenous	Eunaaum				
	carcinogens,	noncarcinogens,	Exposure duration,	Exposure frequency,				
	AT _C	AT _{NC}	ED	FF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
		U.5/		(00)3317				
	70	30	25	250				

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
1.3E-04

MESSAGE SUMMARY BELOW:

END

1576EB@15'_I 1 of 1

				ι	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Defaults	CAS No. (numbers only,	gas conc., C _e (µg/m³)	OR	gas conc., C _g		1576X@15'-R
	no dashes)	(µg/m)	:	(ppmv)	Chemical	
	95476	3.22E+03			o-Xylene	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE ↓	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type	User-defined vadose zone soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	ل. (مص)	T _s (°C)	soil vapor	k, (cm²)	
	(15 or 200 cm)	(cm)	(0)	permeability)	(611)	
	15	457	24			
MORE ↓	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, Pb^ (g/cm³)	ENTER Vadose zone soil total porosity, n (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol} (L/m)	
	L	1.5	0.43	0.15	5	
MORE ↓	ENTER Averaging time for	ENTER Averaging time for	ENTER Exposure	ENTER Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	ATc	AT _{NC}	ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	70	30	30	350		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	1.2E-02

MESSAGE SUMMARY BELOW:

END

1576R@15'_I 1 of 1

					ATA ENTR	Y SHEET		
SG-SCREEN A Version 2.0; 04/	ENTER	Soil ENTER	Gas Concentration	n Data ENTER		DTSC Vapor Intrusion Guidan Interim Final 12/04 (last modified 1/21/05)	ce	
,	e.v.e.v	Soil		Soil		(last modified (72 1703)		
Defaults	Chemical	gas	OR	gas				1576X@15'-I
	CAS No.	conc.,	0.1	conc.,				10,0,10,1
	(numbers only,	C		C.				
	no dashes)	(μ g/m³)		(ppmv)		Chemical		
			•	- ТРРУ		- Cromitor		.
	95476	3.22E+03				o-Xylene]
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
	to bottom	sampling	Average	scs		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	.	T _s	soil vapor		k _v		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24					
	Enter correct SCS s	soil type, or user-de	efined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
<u> </u>	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	ρ_b^{Λ}	n ^ν	$\theta_{\mathbf{w}}^{\mathbf{v}}$		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		

0.15

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for carcinogens,	time for noncarcinogens,	Exposure duration.	Exposure frequency,
AT _C	AT _{NC}	ED	EF.
(yrs)	(yrs)	(yrs)	(days/yr)
70	30	25	250

0.43

1.5

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
	
NA	7.0E-03

MESSAGE SUMMARY BELOW:

	DATA ENT				DATA ENTRY SHEET
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration		DTSC Vapor Intrusion Guidance Interim Final 12/04
Reset to	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)
Defaults	Chemical	gas	OR	gas	1576TMB@15
	CAS No.	conc.,		conc.,	
	(numbers only,	C _a		C,	
	no dashes)	(μg/m³)		(ppmv)	Chemical
	95636	9.40E+00	1	<u> </u>	1,2,4-Trimethylbenzene
	ENTER Depth	ENTER	ENTER	ENTER	ENTER
MORE	below grade	Soil gas		Vadose zone	User-defined
•	to bottom	sampling	Average	scs	vadose zone
	of enclosed	depth	soil	soil type	soil vapor
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,
	L _F	L,	Ts	soil vapor	, k _v
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)
	15	457	24		
MORE	Enter correct SCS ENTER Vandose zone SCS Soil type Lookup Soil Parameters	Soil type, or user-de ENTER Vadose zone soil dry bulk density, P _b ^ (g/cm ³)	ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bidg. (Leave blank to calculate) Q _{ool} (L/m)
		1.5	0.43	0.15	5
MORE +	ENTER	ENTER	ENTER	ENTER	
	A	Averaging			
	Averaging		F	-	
	time for	time for	Exposure	Exposure	
	time for carcinogens,	time for noncarcinogens,	duration,	frequency,	
	time for carcinogens, AT _c	time for noncarcinogens, AT _{NC}	duration, ED	frequency, EF	
	time for carcinogens,	time for noncarcinogens,	duration,	frequency,	

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	4.2E-04

MESSAGE SUMMARY BELOW:

SG-SCREEN Version 2.0; 04/						
		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Defaults	Chemical CAS No. (numbers only,	gas conc., C _p	OR	gas conc., C _o		1576TMB@15'-
	no dashes)	(μg/m³)	ı	(ppmv)	Chemical	
	95636	9.40E+00	L		1,2,4-Trimethylbenzene	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE ¥	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type	User-defined vadose zone soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F (15 or 200 cm)	(cm)	T _s (°C)	soil vapor permeability)	k, (cm²)	
	15	457	24			
MORE ↓	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil	soil type, or user-de ENTER Vadose zone soil dry bulk density, p _b ^	Fined permeability ENTER Vadose zone soil total porosity, n ^v	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sol}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
		1.5	0.43	0.15	5	
MORE .	ENTER Averaging	ENTER Averaging	ENTER	ENTER		
	time for	time for	Exposure	Exposure		
	carcinogens, AT _c	noncarcinogens, AT _{NC}	duration, ED	frequency, EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	(7,3)					
	70	30	25	250		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	2.5E-04

MESSAGE SUMMARY BELOW:

END

1 of 1

				D	ATA ENTR	RY SHEET		
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentratio	n Data		DTSC Vapor Intrusion Guidan Interim Final 12/04	се	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults	Chamlant	Soil	OR	Soil				4576TCCN (845) D
	Chemical CAS No.	gas conc.,	OR	gas conc.,				1576TCFM@15'-R
	(numbers only,	C _p		C.				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	Tio duarios)	(J-g /	•			Official		:
	75694	1.10E+01				Trichlorofluorometha	ne	
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Depth	S-11		Vadan		Hannel Const		
MORE	below grade to bottom	Soil gas sampling	Average	Vadose zone SCS		User-defined vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	Ĺ _F	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24	<u> </u>				
	Enter correct SCS	soil type, or user-de	fined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
<u>\</u> _	SCS soil type	soil dry bulk density,	soil total porosity,	soil water-filled porosity,		flow rate into bldg. (Leave blank to calculate)		
	Lookup Soil	ρ _b ^A	n ^v	θ _w ^V		Q _{sof}		
	Parameters	ρ _υ (g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(9/011)	(Unitiess)	(cm/cm)		(0111)		
		1.5	0.43	0.15		5		
MORE								
<u> </u>	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	_	_				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _c (yrs)	AT _{NC} (yrs)	€D (yrs)	EF (days/yr)				
	71.01	Misi	71.01	(dayaryr)				
	70	30	30	350				
END								

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	5.8E-06

MESSAGE SUMMARY BELOW:

END

1576TCFM@15'_I 1 c

	DATA ENTRY SHEET							
SG-SCREEN PA Version 2.0; 04/ Reset to Defaults	ENTER Chemical	ENTER Soil gas	Gas Concentration	ENTER Soil gas		DTSC Vapor Intrusion Guida Interim Final 12/04 (last modified 1/21/05)	nce	1576TCFM@15'-I
	CAS No. (numbers only,	conc., C _g		conc., C _g				
	no dashes)	(μ g/ m³)	•	(ppmv)		Chemical		=
	75694	1.10E+01				Trichlorofluorometha	ane]
	ENTER	ENTER	ENTER	ENTER		ENTER		-
MORE	Depth below grade to bottom	Soil gas sampling	Average	Vadose zone SCS		User-defined vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor, L _f	below grade, L,	temperature, T _s	(used to estimate soil vapor	OR	permeability, k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24					
MORE	Enter correct SCS : ENTER Vandose zone SCS soil type			ENTER Vadose zone soil water-filled porosity,		ENTER Average vapor flow rate into bldg. (Leave blank to calculate)		
	Lookup Soil Parameters	ρ _h ^A (g/cm³)	n ^v	θ _w ^V (cm³/cm³)		Q _{sof}		
		(g/cm)	(unitless)	(cm /cm)		(L/m)		
		1.5	0.43	0.15		5		

MOR	

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for carcinogens,	time for noncarcinogens, AT _{NC}	Exposure duration, ED	Exposure frequency,
(yrs)	(yrs)	(yrs)	(days/yr)
70	30	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	3.4E-06

MESSAGE SUMMARY BELOW:

				[DATA ENTRY SHEET	
SG-SCREEN PA Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil	Ous Concentration	ENTER Soil	(last modified 1/21/05)	
Deradits	Chemical CAS No. (numbers only,	gas conc., C _o	OR	gas conc., C₅		1576AC@15'-R
	no dashes)	(μg/m³)		(ppmv)	Chemical	:
	67641	5.50E+02			Acetone	l
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE ↓	below grade to bottom of enclosed space floor,	Soif gas sampling depth below grade,	Average soil temperature,	Vadose zone SCS soil type (used to estimate	User-defined vadose zone soil vapor OR permeability,	
	L _F (15 or 200 cm)	(cm)	T _s (°C)	soil vapor permeability)	k _v (cm²)	
	15	457	24			
	Enter correct SCS	soil type, or user-de	efined permeability			
MORE +	ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity,	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bldg. (Leave blank to calculate)	
	Lookup Solf Parameters	ρ _ь ^ (g/cm³)	n ^v (unitless)	θ _w ^V (cm³/cm³)	Q _{sol} (L/m)	
		1.5	0.43	0.15	5	
MORE +	ENTER Averaging	ENTER Averaging	ENTER	ENTER		
	time for carcinogens,	time for noncarcinogens,	Exposure duration, ED	Exposure frequency, EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	70	30	30	350		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	7.8E-04

MESSAGE SUMMARY BELOW:

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

END

1 of 1

	DATA ENTRY SHEET							
SG-SCREEN						DTSC		
PA Version 2.0; 04/						Vapor Intrusion Guidan	nce	
7. 7 6767617 2.767, 6,111		Soil	Gas Concentration	n Data		Interim Final 12/04		
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soit		Soil				
	Chemical	gas	OR	gas				1576AC@15'-I
	CAS No.	conc.,		conc.,				
	(numbers only,	C _n		C,				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	F 07044	5.505.00	1					
	67641	5.50E+02				Acetone		
	ENTER	ENTER	ENTER	ENTER		ENTER		
	Depth							
MORE	below grade	Soil gas		Vadose zone		User-defined		
<u> </u>	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24	<u> </u>				
	13	457						
	Enter correct SCS	soil type, or user-de	fined permeability.					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
<u>+</u>	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
<u> </u>	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soll	ρ ₆ ^	n ^v	θ " Υ		Q _{sol}		
	Parameters	(g/cm ³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5	0.43	0.15		5		
MORE								
—	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging						
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	AT _{NC}	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				
		30	25	290				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	4.6E-04
1474	4.0L-0-I

MESSAGE SUMMARY BELOW:

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

				D	ATA ENTRY S	MEE	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil		(last modified 1/21/05)	
Delauits	Chemical CAS No. (numbers only,	gas conc., C _p	OR	gas conc., C _a			1576CDS@15'-R
	no dashes)	(μg/m³)	ŧ	(ppmv)		Chemical	And the second s
	75150	1.00E+00				Carbon disulfide	
	ENTER Depth	ENTER	ENTER	ENTER		ENTER	
MORE +	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type		User-defined vadose zone soil vapor	
	space floor, L _F	below grade, L _s	temperature, T _s	(used to estimate soil vapor	OR	permeability, k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	15	457	24				
	Enter correct SCS	soil type, or user-de	efined permeability	<i>.</i> .			
MORE ↓	ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity, n ^v	ENTER Vadose zone soil water-filled porosity, θ_w^{\vee}	(L	ENTER Average vapor flow rate into bidg. eave blank to calculate)	
	Lookup Soli Parameters	ρ _ь ^ (g/cm³)	(unitless)	(cm³/cm³)	_	Q _{sol} (L/m)	
		1.5	0.43	0.15		5	
MORE +	ENTER	ENTER	ENTER	ENTER			
	Averaging time for	Averaging time for	Exposure	Exposure			
	carcinogens, AT _c	noncarcinogens, AT _{NC}	duration, ED	frequency, EF			
	(yrs)	(yrs)	(yrs)	(days/yr)			
	70	30	30	350			
END							

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
6.1E-07

MESSAGE SUMMARY BELOW:

END

1 of 1

				D.	ATA ENTRY SHEET	
SG-SCREEN Version 2.0; 04/		Soil	Gas Concentratio		DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Defaults	Chemical CAS No. (numbers only,	gas conc., C _o	OR	gas conc., C _s		1576CDS@1
	no dashes)	(µg/m³)		(ppmv)	Chemical	
	75150	1.00E+00	<u> </u>		Carbon disulfide	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE +	below grade to bottom of enclosed	Soil gas sampling depth	Average soil	Vadose zone SCS soil type	User-defined vadose zone soil vapor	
	space floor, L _f	below grade,	temperature, T _s	(used to estimate soil vapor	OR permeability, k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	457	24			
MORE +	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soll	Soil type, or user-de ENTER Vadose zone soil dry bulk density, Po	efined permeability ENTER Vadose zone soil total porosity, n ^V	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bidg. (Leave blank to calculate) Q _{eod}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
		1.5	0.43	0.15	5	
MORE +	ENTER Averaging	ENTER Averaging	ENTER	ENTER		
	time for carcinogens,	time for noncarcinogens,	Exposure duration,	Exposure frequency,		
	AT _c (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)		
	70	30	25	250		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	3.6E-07

MESSAGE SUMMARY BELOW:

				D	DATA ENTRY SHEET	
SG-SCREEN					DTSC	
A Version 2.0; 04/		Call	Gas Concentration	n Data	Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER	Gas Concentration	ENTER	(last modified 1/21/05)	
Defaults	2.7.2.	Soil		Soil	(last modified 1/2 1/00)	
Delauits	Chemical	gas	OR	gas		1576MEK@15'-R
	CAS No.	conc.,		conc.,		•
	(numbers only,	C _p		C,		
	no dashes)	(µg/m³)		(ppmv)	Chemical	
			•			
	78933	9.10E+00			Methylethylketone (2-butanone)	
	ENTER	ENTER	ENTER	ENTER	ENTER	
	Depth					
MORE	below grade	Soil gas	•	Vadose zone	User-defined	
	to bottom of enclosed	sampling depth	Average soil	SCS soil type	vadose zone soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	L _s	T _s	soil vapor	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	(10 01 200 011)	(CIII)		реглюдыкуу		
	15	457	24			
	Enter correct SCS	soil type, or user-de	fined permeability			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
•	SCS	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil	ρ _b ^A	u,	0 ^v	Q _{sol}	
	Parameters	(g/cm³)	(unitless)	(cm ³ /cm ³)	(L/m)	
		1.5	0.43	0.15	5	
MORE						
•	ENTER	ENTER	ENTER	ENTER		
	Averaging	Averaging				
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	AT _C	AT _{NC}	ED (vms)	EF (days/m)		

(yrs)

30

(yrs)

30

(days/yr)

350

END

(yrs)

70

INCREMENTAL RISK CALCULATIONS:

incremental	Hazard		
risk from	quotient		
vapor	from vapor		
intrusion to	intrusion to		
indoor air,	indoor air,		
carcinogen	noncarcinogen		
(unitless)	(unitless)		
NA	6.3E-07		

MESSAGE SUMMARY BELOW:

END

1 of 1

SG-SCREEN DTSC A Version 2.0; 04/ Vapor Intrusion Guidance Soil Gas Concentration Data Interim Final 12/04 **ENTER** ENTER ENTER (last modified 1/21/05) Reset to Soil Soil **Defaults** 1576MEK@15'-I OR Chemical gas gas CAS No. conc., conc., (numbers only, C C, $(\mu g/m^3)$ Chemical no dashes) (ppmv) 78933 9.10E+00 Methylethylketone (2-butanone) ENTER ENTER ENTER **ENTER** ENTER Depth MORE below grade Soil gas Vadose zone User-defined vadose zone to bottom sampling SCS Average soil type soil vapor of enclosed depth soil temperature, (used to estimate OR permeability, below grade, space floor, T_s soil vapor (cm²) (°C) (15 or 200 cm) permeability) (cm) 457 24 15 Enter correct SCS soil type, or user-defined permeability. **ENTER ENTER ENTER ENTER ENTER** MORE Vandose zone Vadose zone Vadose zone Vadose zone Average vapor flow rate into bldg. SCS soil dry soil total soil water-filled (Leave blank to calculate) soil type bulk density, porosity, porosity, ρ_b^{Λ} 'n θ**"**V Q_{sol} Lookup Soil (cm³/cm³) (g/cm3) (unitless) (Um)0.15 1.5 0.43 5 MORE . **ENTER** ENTER **ENTER ENTER** Averaging Averaging Exposure time for time for Exposure carcinogens, noncarcinogens, duration, frequency, EF ATNC ED AT_{c} (yrs) (yrs) (yrs) (days/yr) 30 25 250 70

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
3.8E-07

MESSAGE SUMMARY BELOW:

END

1 of 1

				L	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentratio	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	Chemical CAS No.	ENTER Soil gas conc.,	OR	ENTER Soil gas conc.,	(last modified 1/21/05)	1576DCA@15'-R
	(numbers only, no dashes)	C _η (μg/m³)	ı	C _s (ppmv)	Chemical	
	75343	5.80E+00			1,1-Dichloroethane	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE +	below grade to bottom of enclosed space floor,	Soil gas sampling depth below grade,	Average soil temperature,	Vadose zone SCS soil type (used to estimate	User-defined vadose zone soil vapor OR permeability,	
	(15 or 200 cm)	(cm)	T _s (°C)	soil vapor permeability)	k, (cm²)	
	15	457	24			
	Enter correct SCS	soil type, or user-de	afined permeability	<i>i</i> .		
MORE +	ENTER Vandose zone SCS Soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity, n ^V	ENTER Vadose zone soil water-filled porosity, 0, V	ENTER Average vapor flow rate into bidg. (Leave blank to calculate) Q _{bot}	
		(g/cm³)	(unitless) 0.43	(cm³/cm³)	(<u>Um)</u>	
MORE	ENTER	ENTER	ENTER	ENTER		
	Averaging time for carcinogens,	Averaging time for noncarcinogens,	Exposure duration,	Exposure frequency.		
	AT _c (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)		
	70	30	30	350		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.3E-09	3.7E-06

MESSAGE SUMMARY BELOW:

END

1 of 1

				ı	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentratio	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil	Ous Gonobilitatio	ENTER Soil	(last modified 1/21/05)	
Deladits	Chemical CAS No. (numbers only,	gas conc., C _n	OR	gas conc., C _s		1576DCA@15'-
	no dashes)	(μg/m³)	-	(ppmv)	Chemical	
	75343	5.80E+00	l		1,1-Dichloroethane]
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE +	below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Soil gas sampling depth below grade, L, (cm)	Average soil temperature, T _s (°C)	Vadose zone SCS soil type (used to estimate soil vapor permeability)	User-defined vadose zone soil vapor OR permeability, k, (cm²)	
	15	457	24			
	Enter correct SCS	soil type, or user-de	efined permeability			
MORE +	ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density,	ENTER Vadose zone soil total porosity,	ENTER Vadose zone soil water-filled porosity,	ENTER Average vapor flow rate into bidg. (Leave blank to calculate)	
	Lookup Soil Parameters	ρ _ь ^ (g/cm³)	n ^V (unitless)	θ _w ^V (cm³/cm³)	Q _{sot} (Um)	
		1.5	0.43	0.15	5	
MORE ¥	ENTER	ENTER	ENTER	ENTER		
	Averaging time for carcinogens, AT _c	Averaging time for noncarcinogens, AT _{NC}	Exposure duration, ED	Exposure frequency, EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	70	30	25	250		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
7.6E-10	2.2E-06

MESSAGE SUMMARY BELOW:

					DATA ENTRY	Y SHEET		
SG-SCREEN PA Version 2.0; 04/		Call	San Campanhartin	- Dete		DTSC Vapor Intrusion Guida	nce	
Reset to Defaults	ENTER	ENTER Soil	Gas Concentration	ENTER Soil		Interim Final 12/04 (last modified 1/21/05)		
Delauits	Chemical CAS No.	gas conc.,	OR	gas conc.,				1576DCE@15'-R
	(numbers only,	C _o		C,				
	no dashes)	(μg/m³)	•	(ppmv)		Chemical		
	75354	5.90E+00				1,1-Dichloroethylen	ne	
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
•	to bottom	sampling	Average	scs		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L_{F}	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24					
•		soil type, or user-de	,					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
	SCS soil type	soil dry bulk density,	soil total porosity,	soil water-filled		flow rate into bldg. (Leave blank to calculate)		
		•	porosity, n [∨]	porosity, θ _ω ^V		•		
	Lookup Soll Parameters	ρ, ^				Q _{sof}		
		(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		1.5	0.43	0.15		5		
MORE	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging						
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	ATNC	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	30	350				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	3.2E-05

MESSAGE SUMMARY BELOW:

END

1576DCE@15'_R 1 of 1

				ט	DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/			Gas Concentratio	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER		ENTER	(last modified 1/21/05)	
Defaults	Chemical CAS No. (numbers only, no dashes)	Soil gas conc., C ₉ (μg/m³)	OR	Soil gas conc., C _g (ppmv)	1! Chemical	576DCE@15'-I
	75354	5.90E+00			1,1-Dichloroethylene	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE	below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Soil gas sampling depth below grade, L _s (cm)	Average soil temperature, T _s (°C)	Vadose zone SCS soil type (used to estimate soil vapor permeability)	User-defined vadose zone soil vapor OR permeability, k _v (cm ²)	
	15	457	24	permeability)	(on)	
	Enter correct SCS	soil type, or user-de	efined permeability	<i>i</i> .		
MORE +	ENTER Vandose zone SCS Soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, ρ_b^{Λ} (g/cm³)	ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bidg. (Leave blank to calculate) Q _{sol} (L/m)	
		1.5	0.43	0.15	5	
MORE	ENTER Averaging time for carcinogens, ATc (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)		
	70	30	25	250		
		<u> </u>	23	250		
END						

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	1.9E-05

MESSAGE SUMMARY BELOW:

END

1576DCE@15'_I 1 of 1

					DATA ENTRY SHEET	
SG-SCREEN A Version 2.0; 04/			Gas Concentratio	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Detaults	Chemical CAS No. (numbers only, no dashes)	gas conc., C _a (µg/m³)	OR	gas conc., C _u (ppmv)	Chemical	1576CF@15'-R
	67663	1.50E+02	<u></u>		Chloroform]
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE +	below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Soil gas sampling depth below grade, L _s (cm)	Average soil temperature, T _s (°C)	Vadose zone SCS soil type (used to estimate soil vapor permeability)	User-defined vadose zone soil vapor OR permeability, k _v (cm ²)	·
	15	457	24			
MORE ↓	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, p. ^ (g/cm³)	ENTER Vadose zone soil total porosity, n ^v (unitless)	ENTER Vadose zone soil water-filled porosity, e,,' (cm³/cm³)	ENTER Average vapor flow rate into bidg. (Leave blank to calculate) Q _{sod} (L/m)	
		1.5	0.43	0.15	5	
MORE ↓	ENTER Averaging time for carcinogens, AT _c (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)		
	70	30	30	350		
END						

DTSC / HERD Last Update: 11/1/03

INCREMENTAL RISK CALCULATIONS:

incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.5E-07	2.1E-04

MESSAGE SUMMARY BELOW:

END

1576CF@15'_R 1 of 1

					DATA ENTRY SHEET	
SG-SCREEN Version 2.0; 04/					DTSC Vapor Intrusion Guidance	
		Soil	Gas Concentration	n Data	Interim Final 12/04	
Reset to Defaults	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Doladilo	Chemical	gas	OR	gas		1576CF@1
	CAS No.	conc.,		conc.,		
	(numbers only,	C _a		C,		
	no dashes)	(μ g/m ³)	•	(ppmv)	Chemical	=
	67663	1.50E+02			Chloroform]
	ENTER	ENTER	ENTER	ENTER	ENTER	
	Depth				ļ	
MORE	below grade	Soil gas		Vadose zone	User-defined	
+	to bottom	sampling	Average	SCS	vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	L,	Ts	soil vapor	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	457	24			
	Enter correct SCS	soil type, or user-de	efined permeability			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
+	SCS	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity,	porosity,	(Leave blank to calculate)	
	Lookup Soil	ρ_b^{Λ}	n ^v	θ " Υ	Q _{sol}	
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)	(Um)	
		1.5	0.43	0.15	5	
MORE						
•	ENTER	ENTER	ENTER	ENTER		
	Averaging	Averaging	F	5		
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
		4.7				
	ATc	ATNC	ED	EF (1		
		AT _{NC} (yrs)	ED (yrs)	(days/yr)		
	ATc					

INCREMENTAL RISK CALCULATIONS:

incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
8.6E-08	1.3E-04

MESSAGE SUMMARY BELOW:

END

1 of 1

				U/	ATA ENTRY SHEET	
SG-SCREEN Version 2.0; 04/		Soil	Gas Concentration	n Data	DTSC Vapor Intrusion Guidance Interim Final 12/04	
Reset to	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Defaults	Chemical CAS No.	gas conc.,	OR	gas conc.,		1576CT@15
	(numbers only, no dashes)	(hā/m³) C ^u	:	C _o (ppmv)	Chemical	
	56235	1.70E+02	l		Carbon tetrachloride	
	ENTER Depth	ENTER	ENTER	ENTER	ENTER	
MORE .	below grade to bottom	Soil gas sampling	Average	Vadose zone SCS	User-defined vadose zone	
J	of enclosed space floor,	depth below grade,	soil temperature,	soil type (used to estimate	soil vapor OR permeability,	
	L _F	L,	T _s	soil vapor	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	15	457	24			
MORE ¥	Enter correct SCS ENTER Vandose zone SCS soil type Lookup Soll Parameters	Soil type, or user-de ENTER Vadose zone soil dry bulk density, Pb ^A (g/cm³)	ENTER Vadose zone soil total porosity, n ^v (unitless)	ENTER Vadose zone soil water-filled porosity, θ_{w}^{\vee} (cm^{3}/cm^{3})	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{sot} (L/m)	
		1.5	0.43	0.15	5	
MORE	ENTER Averaging	ENTER Averaging	ENTER	ENTER		
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
		noncarcinogens, AT _{NC} (yrs)	duration, ED (yrs)	EF (days/yr)		
	carcinogens, AT _C	ATNC	ED	EF		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.0E-06	1.4E-03

MESSAGE SUMMARY BELOW:

END

1576CT@15'_R 1 of 1

				•	D/11/1 = /11/1	· · · · · · · · · · · · · · · · · · ·		
SG-SCREEN A Version 2.0; 04/						DTSC Vapor Intrusion Guidar		
A Version 2.0, 04/		Call	Gas Concentration	n Data		Interim Final 12/04	nce	
Reset to	ENTER	ENTER Soil	Gas Concentration	ENTER Soil		(last modified 1/21/05)		
Defaults	Chemical	gas	OR	gas				1576CT@15'-I
	CAS No.	conc.,	O.C	conc.,				10.00.0
	(numbers only,	C,		Ca .				
	no dashes)	(µg/m³)		(ppmv)		Chemical		
	110 dasiles)	1 (-9)		(ppiny)		Onemidai		•
	56235	1.70E+02				Carbon tetrachlorid	le	}
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
<u> </u>	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L₅	L,	Ts	soil vapor		k,		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)		
	15	457	24					
	Enter correct SCS	soil type, or user-de	fined permeability	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor		
1	SCS	soil dry	soil total	soil water-filled		flow rate into bldg.		
	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	Pb ^A	n ^v	θ.,, ν		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(3)						
		1.5	0.43	0.15		5		
MORE	FNYER	ENTER	ENTER	ENTER				
	ENTER	ENTER Averaging	ENTER	ENTER				
	Averaging time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	AT _c	AT _{NC}	ED .	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
		<u> </u>	- Vi-I					
	70	30	25	250				
END								

DTSC / HERD Last Update: 11/1/03 DTSC Indoor Air Guidance Unclassified Soil Screening Model 1576CT@15'_l 3/5/2009 7:12 AM

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)
8.5E-04

MESSAGE SUMMARY BELOW:

		DATA ENTRY SHEET				
SG-SCREEN					DTSC	
A Version 2.0; 04/					Vapor Intrusion Guidance	
			Gas Concentration		Interim Final 12/04	
Reset to	ENTER	ENTER Soil		ENTER Soil	(last modified 1/21/05)	
Defaults	Chemical	gas	OR	gas		1576TCE@15'-R
	CAS No.	conc.,	OK	conc.,		1070102@1041
	(numbers only,	C,		C _o		
	no dashes)	(μg/m³)	_	(ppmv)	Chemical	
						•
	79016	3.70E+03			Trichloroethylene	
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Depth	0-4		Vadaaa aa	Hann defined	
WORE	below grade to bottom	Soil gas sampling	Average	Vadose zone SCS	User-defined vadose zone	
	of enclosed	depth	soil	soil type	soil vapor	
	space floor,	below grade,	temperature,	(used to estimate	OR permeability,	
	L _F	L,	Ts	soil vapor	k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)	(cm²)	
	(15 01 200 011)	(Citi)		permeability		
	15	457	24			
	Enter correct SCS	soil type, or user-de	efined permeability			
	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Average vapor	
<u> </u>	SCS	soil dry	soil total	soil water-filled	flow rate into bldg.	
	soil type	bulk density,	porosity, n ^v	porosity,	(Leave blank to calculate)	
	Lookup Soil Parameters	ρ,		θ,, ν	Q _{sof}	
		(g/cm³)	(unitless)	(cm³/cm³)	(L/m)	
		1.5	0.43	0.15	5	
MORE						
+	ENTER	ENTER	ENTER	ENTER		
	Averaging	Averaging				
	time for	time for	Exposure	Exposure		
	carcinogens,	noncarcinogens,	duration,	frequency,		
	ATc	ATNC	ED	EF		
	(yrs)	(yrs)	(yrs)	(days/yr)		
	70	30	30	350		

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.1E-06	2.1E-03

MESSAGE SUMMARY BELOW:

					DATA ENTR	RY SHEET		
SG-SCREEN A Version 2.0; 04/		Soil	Gas Concentration	n Data		DTSC Vapor Intrusion Guidan Interim Final 12/04	nce	
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults		Soil		Soil				4570TOF@45! I
	Chemical CAS No.	gas	OR	gas				1576TCE@15'-I
	(numbers only,	conc.,		conc., C _g				
	•	(μg/m³)		1		Chemical		
	no dashes)	1 (μ9/π /	•	(ppmv)		Cifetilical		•
	79016	3.70E+03]			Trichloroethylene		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
+	to bottom	sampling	Average	scs		vadose zone		
	of enclosed	depth	soil	soil type		soil vapor		
	space floor,	below grade,	temperature,	(used to estimate	OR	permeability,		
	L _F	L,	T _s	soil vapor		k _v (cm²)		
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm)		
	15	457	24					
	Enter correct SCS	soil type, or user-de	efined permeability					
	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor flow rate into bldg.		
	SCS soil type	soil dry bulk density,	soil total porosity,	soil water-filled porosity,		(Leave blank to calculate)		
	Lookup Soll	ρ_b^A	n ^v	θν		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(g/ciii /	(Ornuess)	(cm /cm /		(Citi)		
		1.5	0.43	0.15		5		
MORE								
+	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging		F				
	time for	time for	Exposure duration,	Exposure frequency,				
	carcinogens, AT _c	noncarcinogens, AT _{NC}	ED	requericy, EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				
END								

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard				
risk from	quotient				
vapor	from vapor				
intrusion to	intrusion to				
indoor air,	indoor air,				
carcinogen	noncarcinogen				
(unitless)	(unitless)				
6.4E-07	1.2E-03				

MESSAGE SUMMARY BELOW:

		DATA ENTRY SHEET					
SG-SCREEN PA Version 2.0; 04/						DTSC Vapor Intrusion Guidance	
Reset to Defaults	ENTER	Soil ENTER Soil	Gas Concentration	n Data ENTER Soil		Interim Final 12/04 (last modified 1/21/05)	
	Chemical CAS No. (numbers only,	gas conc., C₀	OR	gas conc., C _a			1576PCE@15'-R
	no dashes)	(µg/m³)	=	(ppmv)		Chemical	 •
	127184	1.70E+04				Tetrachloroethylene]
	ENTER	ENTER	ENTER	ENTER		ENTER	
MORE	Depth below grade to bottom	Soil gas sampling	Average	Vadose zone SCS		User-defined vadose zone	
الـــــــــــــــــا	of enclosed space floor,	depth below grade,	soil temperature,	soil type (used to estimate	OR	soil vapor permeability,	
	L _F	L,	Ts	soil vapor		k,	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm²)	
	15	457	24				
	Enter correct SCS	soil type, or user-de	efined permeability				
MORE	ENTER Vandose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone		ENTER Average vapor	
₩OKE	SCS	soil dry	soil total	soil water-filled		flow rate into bldg. (Leave blank to calculate)	
	Lookup Soil Parameters	bulk density, ρ _ь ^ (g/cm³)	porosity, n ^v (unitless)	porosity, θ _w ' (cm³/cm³)		Q _{sol} (L/m)	
		1.5	0.43	0.15		5	

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for carcinogens,	time for noncarcinogens,	Exposure duration,	Exposure frequency,
AT _C	AT _{NC}	ED	EF
(yrs)	(yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.3E-05	1.5E-01

MESSAGE SUMMARY BELOW:

END

1 of 1

	DATA ENTRY SHEET							
SG-SCREEN A Version 2.0; 04/	Soil Gas Concentration Data			DTSC Vapor Intrusion Guidance Interim Final 12/04				
Reset to	ENTER	ENTER		ENTER		(last modified 1/21/05)		
Defaults	Chemical	Soil	OR	Soil				1576PCE@15'-I
	CAS No.	gas conc.,	OR	gas conc.,				13/6705@13-1
	(numbers only,	C _p		C,				
	no dashes)	(μg/m³)		(ppmv)		Chemical		
	Tio desires)	1 (49)	•	(ppiny)		Officiality		
	127184	1.70E+04				Tetrachloroethylene		
	ENTER Depth	ENTER	ENTER	ENTER		ENTER		
MORE	below grade	Soil gas		Vadose zone		User-defined		
Ψ	to bottom	sampling	Average	SCS		vadose zone		
	of enclosed	depth	soil	soil type	0.0	soil vapor		
	space floor, L _F	below grade,	temperature, T _s	(used to estimate soil vapor	OR	permeability.		
	•	L _a	(°C)			k _v (cm²)		
	(15 or 200 cm)	(cm)	(0)	permeability)		(ciii)		
	15	457	24					
		soil type, or user-de						
MODE	ENTER	ENTER	ENTER	ENTER		ENTER		
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled		Average vapor flow rate into bldg.		
<u></u>	soil type	bulk density,	porosity,	porosity,		(Leave blank to calculate)		
	Lookup Soil	ρ_b^{Λ}	n ^v	θ., ν		Q _{sol}		
	Parameters	(g/cm³)	(unitless)	(cm³/cm³)		(L/m)		
		(9/0//)	(unitess)	(citi /citi /		(67/11)		
		1.5	0.43	0.15		5		
MORE	ENTER	ENTER	ENTER	ENTER				
	Averaging	Averaging	ENIER	ENIER				
	time for	time for	Exposure	Exposure				
	carcinogens,	noncarcinogens,	duration,	frequency,				
	ATc	ATNC	ED	EF				
	(yrs)	(yrs)	(yrs)	(days/yr)				
	70	30	25	250				

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
8.0E-06	9.0E-02

MESSAGE SUMMARY BELOW: